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THE 600-SHIP NAVY AND THE MARITIME STRATEGY

HEARINGS

BEFORE THE

SEAPOWER AND STRATEGIC AND CRITICAL MATERIALS SUBCOMMITTEE

OF THE

COMMITTEE ON ARMED SERVICES
HOUSE OF REPRESENTATIVES

NINETY-NINTH CONGRESS

FIRST SESSION

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THE 600-SHIP NAVY AND THE MARITIME STRATEGY

House of Representatives,
Committee on Armed Services,
Seapower and Strategic and
Critical Materials Subcommittee,
Washington, DC, Monday June 24, 1985.

The subcommittee met, pursuant to call, at 10 a.m., in room 2118, Rayburn House Office Building, Hon. Charles E. Bennett, (chairman of the subcommittee) presiding.

OPENING STATEMENT OF HON. CHARLES E. BENNETT, A REPRESENTATIVE FROM FLORIDA, CHAIRMAN, SEAPOWER AND STRATEGIC AND CRITICAL MATERIALS SUBCOMMITTEE

Mr. Bennett. The subcommittee will come to order.

Today, the Seapower Subcommittee begins the first of, what will be, a series of hearings on the size and composition of the U.S. Navy. As an important part of the committee's ongoing oversight responsibility for the Navy, these hearings will address the policies and strategies surrounding the current administration's push toward a 600-ship Navy and will seek information concerning possible alternatives to administration proposals.

As many are aware, the subcommittee has held numerous hearings over the years as a part of the annual authorization process on the kind of Navy this country should have. This latest set of hearings should be viewed as complementary and in amplification of our past work on this matter. I believe them to be of such importance that I have, by "Dear Colleague" letter, invited any Members of the House of Representatives to attend and participate.

Today's session will be followed at a later date by a closed hearing in which the subcommittee will consider the underlying strategy behind the numbers and characteristics of U.S. Navy ships. This should provide the opportunity for extensive exploration of this complex subject.

The third part of this series will be devoted to an examination of alternative strategic concepts, numbers of ships and types of ships. I anticipate that this later session will be an appropriate forum to hear from those who support a larger or smaller Navy or particular kinds of ship types not included in any Navy plans that we know of at this time.

If necessary, the committee might later invite today's witnesses to return to address specific questions raised during the hearings.

Appearing before the committee today are Secretary of the Navy John Lehman; Adm. James Watkins, the Chief of Naval Operations; and Gen. P.X. Kelley, the Commandant of the Marine

Corps. I have asked these gentlemen to be prepared to discuss the several areas that are the subject of these hearings.

Subsequent to the original scheduling of today's session, I also wrote Secretary Lehman and Admiral Watkins and asked them to address two other subjects to the greatest extent possible in open session. First, the damage that may have been done to Navy operations and communications as a result of the recent allegations of spying by the Walker group; and second, the current state of survivability of our strategic and attack submarines in light of the spy allegations and recent news reports concerning the use of lasers and space platforms for discovering submarines.

Should it become necessary to reach into classified areas in order to complete the discussion on these subjects, the committee will then proceed to closed session toward the end of today's hearing or possibly in another hearing.

Mr. Spence has a statement, I believe, that will be entered into the record at this time.

PREPARED STATEMENT OF HON. FLOYD SPENCE, A REPRESENTATIVE FROM SOUTH CAROLINA, RANKING MINORITY MEMBER, SEAPOWER AND STRATEGIC AND CRITICAL MATERIALS SUBCOMMITTEE

Thank you Mr. Chairman.

I'd like to welcome back before our subcommittee Secretary Lehman, Admiral Watkins, and General Kelley. As always, I'm sure we will profit from your advice and wisdom.

This subcommittee has studied and specifically considered the size and composition of the Navy for at least the past decade and a half. As a result of that careful consideration, we have been able to recommend to the full House the course of action that has lead us to the achievement of a 600-ship Navy in this decade. There should be no mistaking the effort that went into reaching this major milestone on the part of both the Congress and the Administration. It is not a goal that was set without considerable deliberation and study, nor will it be sustained without considerable forethought and effort.

That having been said, I think that it is not unreasonable to take some additional time to examine in detail certain issues that are likely to effect the way we shape the Navy of the future. The major topic remains the matchup between our national strategy and treaty commitments and the 600-ship Navy as described by the Administration. In simple terms, the question is: are 600 ships and 15 carrier battle groups enough to meet our needs, and are we buying the right kinds of ships to fit these goals? Other, more specific issues involve the design and capabilities of particular ships and weapon systems. The scope of these hearings as announced by the Chairman seems broad enough to allow for discussion of each of these areas.

All of us on this subcommittee are dedicated to maintaining a strong and viable Navy, second to none in the world. But in this day and age of increasing zeal for reducing the defense budget we'll need a clear and convincing case for such a Navy to take to the Congress and the people if we hope to prevent the kind of deterioration of ships and morale we saw in the last decade. I look forward to these hearings as a means of getting to the core of these issues.

Mr. BENNETT. Secretary Lehman, you may proceed. Thank you for coming.

STATEMENT OF HON. JOHN LEHMAN, SECRETARY OF THE NAVY

STATUS OF THE WALKER CASE

Secretary LEHMAN. Thank you, Mr. Chairman, it is a pleasure to be back before the subcommittee.

I would first like to suggest a brief summary for the subcommittee of the status of the *Walker* case; the legal cases, the damage assessment that we have made and the initiatives we have taken, and are taking, to improve the security management of the Navy Department and the Defense Department in general; and then the broader lessons and specific legislative initiatives that we think could help a great deal in correcting problems that this case has brought to light.

First, there is very little that we can add to what is in the public domain on the status of the cases. We are working very closely with the Department of Justice and the FBI. We have a representative on their task force and we think that they are doing an outstanding, first-class job. There is complete cooperation between the Department of Defense, Navy, and Justice and we are very pleased with the progress of those cases.

Because the judge handling this case in Baltimore has issued an order limiting the discussion of the merits of this case we have been enjoined from going any further into discussion of the specific cases now before the courts.

I think it would be best for Admiral Watkins to give you a brief unclassified summary of the damage assessment. The damage is very serious and substantial, but not catastrophic.

Mr. **Bennett**. Admiral.

STATEMENT OF ADM. JAMES D. WATKINS, USN, CHIEF OF NAVAL OPERATIONS

Admiral **Watkins**. Mr. Chairman, as you know, the Secretary and I participated in a news conference 10 days ago in which we announced a number of points regarding the *Walker* case. I would like to summarize those points for you now because basically nothing has changed since that press conference to give any new insights on new exposures that might change this analysis.

We now think, therefore, that we are closing in on the boundaries around this problem. In such cases, we always do a worst-case analysis. It is very important we do that consistently so that if there is potential for compromise, we invariably assume compromise has occurred. When we know there is compromise, the sense of urgency for immediate action then becomes much greater, as is the case with the Walker exposé.

I will break these potential losses to the Navy and the Nation down into important warfare areas. As you know, the Walkers were focused on the U.S. Navy, and therefore, for the most part, these transfers of documents and communication information to the Soviets were targeted at the U.S. Navy.

AREAS THAT MIGHT HAVE BEEN COMPROMISED

Because of John Walker's communication background, and the obvious high potential for gain for the Soviets, the communications area is the most serious area of compromise. Some technical design features in the area of communications were probably lost.

The Nation always has a contingency plan for compromise and are ready with alternative systems, but as I pointed out earlier, we don't call those systems up on an urgent basis unless we need to, but we can accelerate them, and we are in that process now. So these new designs which have been on the shelf and possibly could have been put off for several years are now going to be brought to the fore.

Procedures are already being put into place to avoid the use of equipment believed compromised. This keeps important communications secure. Those actions are under way now worldwide, by all services and all users of the equipments, including selected allies.

Very little, if any, technical design information was lost via the communications network to key weapon systems, sensors, and platforms. On the other hand, much of the information loss to communications was operational in nature, albeit mostly perishable. But they did gain the ability to copy some of our secure teletype nets at sea and some of our secure voice circuits.

This gave them the opportunity through communications networks, to be able to validate their other observations, in other words, filling their voids of knowledge. I call this gaining "ground truth." By that I mean that if you observe an operation and are not sure what the other side is doing and then the other side, by any means, passes you the detailed information of exactly what it was doing, you put the two together and have a very good analytic basis on which to make judgments about your own forces, procedures and the like. Obviously, through this communications leakage, they have been able to do this kind of analysis, perhaps for many years.

In the area of air warfare, the approach here is not unlike that approach we took in the case of the Phoenix missiles which were left in Iran. We assumed immediately that the system was compromised to the Soviet Union. As you know, we embarked on a modification to our Phoenix missile system, which the Congress supported, called the AIM-54C missile as a variant of the AIM-54A missile in Iran which is also the current missile in our fleet. That was an expensive process. So when we find these compromises, it does cost the taxpayers a great deal of money to fix the particular problem.

Similarly, as far as air warfare is concerned, then, the Soviets may have obtained specific data from Walker on capabilities of aircraft, sensors, missiles, and countermeasures equipment. Much of this information could have come from documents passed by the Walkers as well as the information derived from operational message traffic. So there were documents transmitted as well that could affect us in this area. We are going through each of those documents and we will have to design counters to the compromises represented by each one of the particular areas of interest.

In the area of antiship warfare, as with antiair warfare, much of the information regarding systems capability is available from other sources and observations. But in this difficult area of targeting mobile units at sea, the Soviets may have obtained specifics regarding our procedures and the equipment we use. This, of course, would give them insights into counterstrategies against our targeting capabilities and is of concern to us.

As in several areas, then, the tactics will have to be examined for modification and that is underway today. We know how to modify tactics; we have done it before. On the other hand, there are opportunities for exploitation that we can take advantage of, or perhaps, potential deception and tactical advantages in our favor which can be denied.

In antisubmarine warfare, one of the most serious areas to focus on, I would like to talk first on antisubmarine warfare in general and then we will talk about vulnerability of the sea leg of the triad and the impact of the Walker exposé in that area. What I will discuss here in antisubmarine warfare is their ability, from this information passed to them, to determine how the United States could maintain such a technological advantage over them. The Soviets in turn could focus their own resources in particular areas that we have identified as their weaknesses. We think that they have done just that over the years. We think the Walkers have contributed to closing of the technological gap that was significant about 10 years ago. We all know the gap has been closing at a rapid rate, and clearly, the Walkers contributed to an acceleration of that closure rate. This is expensive for our country, for it puts us, in essence, in a race with ourselves in technology.

The Soviets, then obtained a considerable degree of ground truth, as I defined earlier, on our ASW effectiveness. They have confirmed, therefore, that in the complex physical environment of undersea warfare, they have to work harder to try to overcome the technical advantage we still enjoy in building quiet submarines and advanced systems for these ships.

But we have witnessed a closure rate that is higher than we would have expected, and we think the Walkers contributed to that.

The information that Walker had access to involved the 6th Fleet, while attached to two strategic missile submarines, and as a member of Commander Submarine Force Atlantic Fleet staff, we must assume he gave the Soviets real time information on important submarine operations and insights into our strategies and tactics.

VULNERABILITY OF THE SSBN

Now, let's talk about the vulnerability of the SSBN. It appears that much of the information that Walker could have passed was derived from the 1962 to 1969 timeframe when attached to the units that I mentioned earlier. However, while important information must be considered compromised, most of that information was time-sensitive and perishable; still important, but perishable information. In the interim period, tactics and equipment have changed significantly with major advances in equipment, platforms and weapons. Those aspects are changing daily. All of this works, again, in our favor.

We assume that information on the location of large patrol areas, various operational security programs, weapons system capabilities and the like have all been compromised. But these systems and procedures have also changed and continue to change with exploding technology and therefore, have become less relevant as a function of time.

As you know, we expend much effort to know if our SSBN's have been detected while on patrol. I can't provide more detailed information without giving up information that is still secure, but I can tell you that based on 25 years of SSBN patrol analysis, our strategic deterrent remains secure and we know that. That is not to say we shy away from examining every facet of security in this program, as in all others. I am confident, however, that we remain 100 percent survivable in our SSBN force. Not long ago I visited one of our SSBN's after the *Walker* case and I asked a group of our sailors that operate the special acoustic sensors aboard. I said, "Is there a feeling among you sailors that actually work this system—is there a feeling of self-confidence or do you believe that because of this, and any other information or observations you have, you feel less confident?" They said, "We still feel as confident as we ever have that our SSBN is secure." We have analytical data that could be provided to support that "feeling" but substantiated from a more factual data base.

So in summary, then, Mr. Chairman, we think we have bounded the problem in the most important naval warfare areas. We are assuming the worst case with regard to the loss and we are embarked on actions now that will probably eventuate in expensive changes to programs as time goes on and certainly will require changes that we would not have made otherwise. But we must now make way on an aggressive schedule.

We are taking the lead with regard to stopping any communication leaks caused by Walker's disclosure of cryptologic equipment and procedure. In fact, the fleet commanders have already sent in their implementing messages. We feel quite confident now that we have turned off that source of information and have all other information moving around the fleet in a secure form.

Mr. **Bennett**. I recently received a letter from the Secretary of Defense in which he said, on another matter, that he felt the Department of Defense did not have the interrogators, informants and the procedures to do some kind of work with regard to the drug problem that I am interested in, and it just brought to my mind, perhaps there are some things—although they probably wouldn't come before this committee and they would probably be defensewide, but could be done to improve this situation, like polygraphs and things like that.

Is the Department of Defense, the Navy, going to send to the Congress some proposed legislative ideas like that?

USE OF POLYGRAPH TESTING

Secretary **Lehman**. Mr. Chairman, we have a number of initiatives that we are supporting very strongly and eventually, there will be a fully staffed executive branch legislative proposal. But in the meantime, there are a number of bills moving forward in both Houses, that will carry out what we think is essential to be done.

First, we need the ability to use polygraphs strictly limited to national security questions, no fishing expeditions, no probing of personal lives, strictly limited to the issue of espionage and security. We need to be able to apply that kind of polygraph examination on a random basis to those working with sensitive information, similar to what we have done so successfully with urinalysis testing on the drug abuse issue. We think that is the most important initiative. It would do more than any other initiative to really tighten up our system.

Next, we think there are two holes in the law that need to be filled to make the sanction for espionage commensurate with the magnitude of the crime. We believe it should be a capital offense and Congress must enact the procedural measures necessary for the courts to apply the death penalty, which is already on the books. We need to establish espionage as a crime under the Uniform Code of Military Justice in peacetime which it currently is not.

Next, we need to reestablish parity in the numbers of personnel that the Soviets are allowed to have in this country, currently more than double the number we are permitted in the Soviet Union. We need to close the loophole that allows some 425 Soviet employees of the United Nations Secretariat to roam free without any restrictions whatsoever around this country. We need to put them under the same restrictions that all of our people are under in the Soviet Union.

We need to get legislation prohibiting those convicted of espionage from profiting from their crimes through books, movies, television rights, and so forth. We need legislation that would fund State and local governments to allow the Federal Government access to local records for security purposes. Currently, we have very little success in many States and local jurisdictions in finding out, for instance, as has come to light in the *Walker* case, whether an individual has been convicted or arrested in local jurisdictions.

So those are some of the legislative initiatives that we believe need to be carried through rapidly with polygraphing at the very top of the list. But, we are not standing still in the Navy and the Defense Department in solving the problems that we have seen, and they are very real. We clearly do not have an adequate security management system in place in the Navy and we are moving out smartly to change this right away.

We have taken steps to accomplish an immediate 10 percent reduction in the number of personnel holding clearances. We are doing this at the command level and we are seeing immediate and substantial reductions of people holding clearances. We have an objective to achieve a 50-percent reduction of the 900,000 people in the Department of the Navy that currently hold clearances. We would like to cut that number in half and we think we can do that.

We want to reduce, substantially, the volume of material that contains classified information. This is not a question of overclassifying facts so much as overproducing documents. We need to reduce the volume. Instead of making 20 copies of a manual, we want to make only one. We want to put strict technical and managerial controls on the copying of documents and so forth. We are instituting random inspections of personnel going on and off naval ships and installations. We have implemented that already.

So, we are moving out to address a serious problem which is a manifestation of the larger problem of bureaucratic explosion that I have addressed elsewhere before your subcommittee. Just since last summer, we have increased the number of people holding security clearances by more than 10 percent. We have gone from 3.8 million to 4.3 million, defensewide, in just 1 year and that is a manifestation of this ever-growing bureaucracy in the executive branch and here on Capitol Hill, so we need to deal with that as well.

That pretty much summarizes what we would like to update you on for the *Walker* case, Mr. Chairman.

Mr. BENNETT. Thank you very much.

Now, in order to efficiently handle these hearings, since we really have three subject matters: the spy case, submarine surveillance, and the 600-ship Navy—and of these, the latter was the one that we originally set this for—I think it might be a good idea if at this point I asked any questions on the espionage matter and then we will go to the surveillance matter and then we will go to the 600-ship Navy.

Anybody have any questions they would like to ask?

Mr. Hunter.

Mr. HUNTER. Thank you, Mr. Chairman.

Mr. Secretary, I think we are very concerned about two things. One is making sure that there are no other ongoing leaks that might be present right now beyond the Walkers, and the other is to prevent other leaks from starting in the future.

My question to you, with regard to polygraphing, is do you have plans to run polygraphs for the people who presently enjoy—some 900,000 personnel or some portion thereof—the security clearances that you spoke of? If you don't have that, what do you need—what roadblocks presently exist that keep you from polygraphing people who presently have these clearances?

Secretary LEHMAN. Congressman, we are currently limited by law to, I think, 2,000—I will provide the exact number for the record—polygraphs that we are permitted to give under a 1-year test program. Of course, 2,000, as a percentage of 900,000 is very tiny. We need the legislative authority to apply essentially the same type of approach that we are applying so successfully with random urinalysis.

The exact numbers are 3,500 defensewide and 550 for the Navy. That is all we are permitted to do this year. So, we need authority to do polygraphs on a random basis for those in a position to handle and be cleared for classified material and for initial clearances for those coming into the security system.

Again, we want to emphasize that we are not talking about so-called lifestyle polygraphs, asking about personal lives and finances. Perhaps five to seven questions, such as, Are you spying? or Have you compromised classified information intentionally? We need legislation to proceed with that.

Mr. HUNTER. Understanding that and understanding the parameters of the questions that you are going to ask that won't touch on lifestyles or other things, you are going to ask basically an uncomplicated polygraph test. Is it your plan ultimately to polygraph everyone who is in the position of possibly compromising American security, or simply go at it in a random manner that is similar to the urinalysis tests that now occur?

Secretary LEHMAN. We would have to do it primarily on a random basis, although, it might depend on the clearance level—for instance, we may be able to do it for every person being cleared for highly classified information and we would like to do that. Whereas, those cleared for access to secret material, for instance, would be done on a random basis. It would also depend on the numbers of testers we are able to obtain, because it is a very technical and demanding skill, to be able to give a polygraph test. The number that can be tested by one person are limited and the number of persons that we have will be limited, so it will be a combination of both. However, the higher the security classification, the more people will be tested.

Mr. HUNTER. Thank you, Mr. Secretary.

Mr. Chairman, I would suggest if it is possible that we work on this in time to, perhaps, take some of these roadblocks out of the way pursuant to our authorization bill that is up now, if that is possible.

Mr. BENNETT. If we can do it that rapidly, fine, but there are committees that are working on existing legislation. We will do our best. I thought we should address this subject, although I am not sure to what extent we have jurisdiction over it.

Mr. HUNTER. Thank you, Mr. Chairman.

Mr. BENNETT. Mr. Price.

Mr. PRICE. No questions.

Mr. BENNETT. Mr. Montgomery.

Mr. MONTGOMERY. Thank you, Mr. Chairman.

Just to follow up on what Mr. Hunter was talking about, there is an amendment to our authorization bill by Congressman Bill Young of Florida that, in effect, gives you the authority to make polygraph tests. Are you familiar with that amendment? Do you support it and does Admiral Watkins?

Secretary LEHMAN. Yes; I am familiar with it and we do support it.

Mr. MONTGOMERY. Do you know exactly what the amendment does?

Secretary LEHMAN. I don't have a copy of it before me, but I will respond for the record.

[The following information was received for the record:]

Amendment to H.R. 1872 authorizes the Secretary of Defense to institute a counterintelligence polygraph examination program for military, civilian, and contractor personnel under the Department of Defense and the armed forces. The counterintelligence polygraph examination shall be limited to technical questions necessary to polygraph technique and questions directly related to espionage, sabotage, terrorism and unauthorized disclosure of classified information. Personnel whose duties require access to classified information may be required to undergo the polygraph examination prior to being granted access to classified information and at random intervals while having access to classified information. Personnel whose duties require access to special access programs shall be required to undergo the polygraph examination prior to being granted access to such information and at random while having access to special access program information. In recognition of current limited resources, the program will begin at the earliest feasible time.

The authority to randomly conduct polygraph examinations is required to deter those individuals, whose duties put them in a position requiring access to classified information, from acts of espionage. Thus, the authority provided by passage of this legislation would be an important component of the Navy's effort to counter espionage and to improve our security posture.

Mr. MONTGOMERY. That is going to be one of the big votes that comes up this week and it would certainly help if the Navy Department is supportive of this amendment that would help you on polygraphs.

Secretary LEHMAN. What we have seen so far, we do support.

Mr. MONTGOMERY. The other question would be, Mr. Chairman, following up on capital punishment, would you further explain your statement on capital punishment when espionage and spies are involved?

Secretary LEHMAN. Yes; first, under the UCMJ current legislation enables espionage to be prosecuted by military courts only in time of war, and so there is no crime of espionage under the UCMJ at the current time.

Mr. MONTGOMERY. What is the UCMJ?

Secretary LEHMAN. The Uniform Code of Military Justice.

Second, in Federal criminal law, there is a death penalty, but the courts have held that until Congress enacts the kind of procedural steps that they have for the application of the death penalty with regard to murder, that the death penalty cannot be applied. That is a legislative step that is required, which we would urge be done.

Mr. MONTGOMERY. Thank you, Mr. Chairman.

Mr. BENNETT. Mr. Bateman.

Mr. BATEMAN. Thank you, Mr. Chairman.

My question really thrusts in the same direction as that of my colleague, Mr. Hunter, concerning the polygraph test and the initial emphasis placed on random lie detector tests. I would certainly applaud your later caveat that maybe random isn't enough for those who are in very, very strategic places. It occurs to me there is a world of difference between the deterrence and investigative effectiveness of random polygraph tests in an espionage context as opposed to a drug-related context. So I would certainly encourage you—to the extent that it is physically and practically available—to encourage or to seek authority for a wider universal use of polygraph in at least the most sensitive areas.

Mr. Chairman, the other question that I have, I am confident would be better asked if we are going to have an executive session at some point this morning; if not, I would hold it.

Mr. BENNETT. We are probably not going to have an executive session this morning because we don't have a sufficient number of our committee. We have a sufficient number of other people, but not of our committee.

Mr. BATEMAN. Mr. Chairman, I will withhold asking the question.

Mr. BENNETT. The next session we have will be a closed session.

Mr. BATEMAN. OK. Thank you, Mr. Chairman.

Mr. BENNETT. Mr. Swift.

Mr. SWIFT. Mr. Chairman, I thank you very much for inviting me to sit in with this committee today. I have a considerable personal interest in the topic that we are going to get into in a while, the 600-ship Navy. I am pleased to be here and I have no questions at this time.

Mr. BENNETT. At this point, I think, before we get into the 600-ship Navy, you might address in some fashion, probably very shortly, the question of the surveillance problems that were discussed here sometime back about whether or not we have sufficient feeling that our submarines are not too prone to be detected.

SURVEILLANCE PROBLEMS

Admiral **Watkins**. I touched on that briefly, Mr. Chairman, in my remarks on the Walker case. I can assure you that the thrust in our budget submission to the Congress over the last several years has been to ensure that we maintain the jewel in our crown of antisubmarine superiority. It is still very much on the front burner with us, and with your committee, as you know.

We know that the technology gap has been closed, but not closed so far that they have new insights which will permit them to overtake us, as long as we protect our present technology edge. We have good hard data that tells us exactly where they stand vis-a-vis our own submarines. This is why we are going to the SSN-21, the new class. This is why we are putting the large majority of the dollars of our budget submission into the antisubmarine warfare task for the Navy. It is the most expensive of all the warfare areas. This is why we have the tremendous advantage in sensors and capabilities. We still hold that lead, but it is closing on us and Walker has contributed to that closure rate. We are going to have to work harder at keeping the edge. We are going to have to learn from this event and try to close down any more technology leaks by any means. We must ensure that we do not lose the edge because it is critical to the whole national strategy, not only naval strategy.

Mr. **Bennett**. I notice that some of the things that I read about in the open press with regard to surveillance looked to me, like things that could be pretty well taken care of by proper tactics. In other words, there are some theoretical scientific things that might make, in the future, perhaps, submarines more visible; nevertheless, with proper tactics, it seems like to me that they are all pretty well things that could be evaded. Is that an accurate statement?

Secretary **Lehman**. Yes, except I don't think it is even as direct a problem to be dealt with as you suggest. Some of the publicity that appeared in the Air Force magazine and other places is simply nonsense; that synthetic aperture radars from space can detect the wakes of submarines. We know that that is not possible.

If you take a submarine and steam at very high speed on or just under the surface, yes, you can make a wake and you can detect it with synthetic aperture. Indeed, you can detect it visually from an orbiting shuttle or space station, but we are confident that we are on top of the most advanced state of research throughout the world in the phenomenology involved and we see no developments in synthetic aperture or any other sensor at this point from space or in the water that would lead us to change the assessment that we have given repeatedly before this committee. In fact, the trend of technology is making the oceans more opaque, rather than less opaque; the hiders are gaining an advantage over the seekers.

Mr. **Bennett**. Thank you very much.

Unless somebody has some questions to ask on this particular line, we are now going to discuss the 600-ship Navy. Anybody have any questions on this particular matter?

Then I would like to say that the major reason why these hearings are being held now is because there has been some comment recently about whether or not there is a particular reason to have a 600-ship Navy; whether it ought to be smaller for economic reasons or larger for defense reasons or what have you. And there was so much controversy about it, in the press, at least, that I thought was fairly unfounded because we have had hearings through the years repeatedly on the size of the Navy and we have had admirals come here and suggest 1,000-ship Navy or even 1,500 to get us up to the Russian number, and we have had others who say that it should be smaller—and, of course, there couldn't be any real mysticism about a precise number—599, obviously, or 601—there is no mystical thing about that, but the mix of ships is tremendously important.

Then I remember a very fine presentation, Admiral Kidd gave—I think perhaps one of the finest we ever had—in which he went into a lot of strategic and tactical matters which, of course, could not be done in open session and that is the sort of thing we will have in our next hearing.

But I thought from the standpoint of the general public, it would be wise for us to look at it again now, since there is controversy or conversation about whether there is any real value in having a 600-ship Navy. We will address that as much as we can in the public session and the next hearing we will have will be a hearing that will go into strategic and tactical matters of precisely why you have to have so many carriers in a particular location, et cetera. And then the third one would be one which we would have people who criticize the number we have arrived at and then possibly a rebuttal at the end of that. In this way, the public would get a feeling, which would be true, that the Congress is looking precisely at the size of the Navy because it will cost more money to have a 600-ship Navy in the future from the standpoint of manning it, if nothing else. And so for those reasons and many others, we are delighted that you have come here to talk with us now about the 600-ship Navy and you can proceed in any way you desire to do so.

STATEMENT OF HON. JOHN F. LEHMAN, JR—Continued

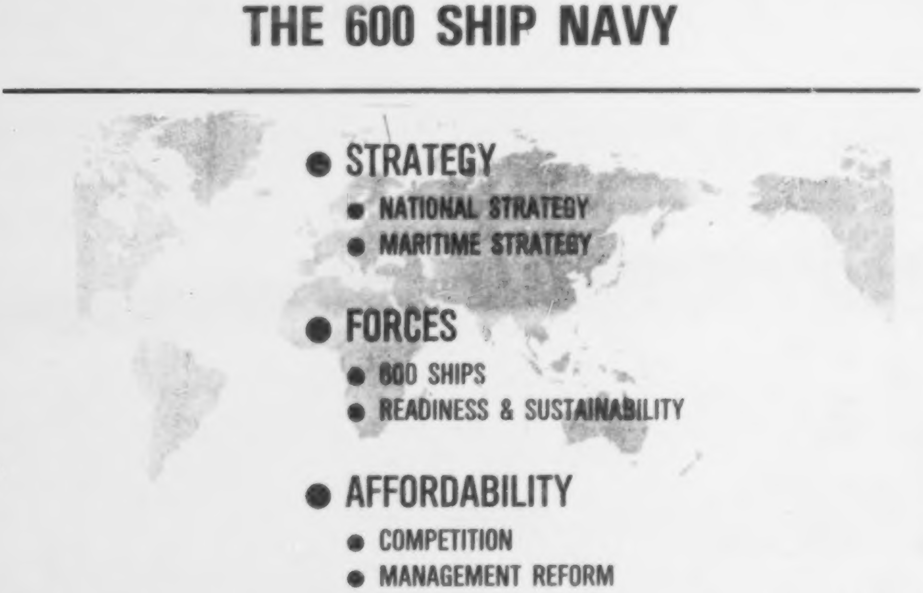
600-SHIP NAVY

Secretary LEHMAN. Thank you very much, Mr. Chairman, and I very much applaud your leadership in reexamining this issue because it is very useful to review periodically. We had our staffs research just how often this subcommittee has looked into it because we felt we would lead off with a brief historical summary. We found however, that the volume of paper is so great, and the hearings that you have held in exploring every aspect of it so numerous, that we could not, even with a dump truck, bring all the committee prints up to review. So it has been thoroughly examined and this is a useful point to review it all once again.

The way I would like to proceed is to start with a brief summary of how the number 600 was arrived at.

First of all, you have noted before that we are now 4½ years into what has been perhaps one of the most stable periods of consensus on just what kind of Navy we should have and what its size should be. We haven't waivered, nor has Congress waivered in supporting what we laid before Congress 4½ years ago, and that was a fleet of some 600 ships balanced in warfare capabilities and stable in the number types of ships involved.

The reason for this stability is that the number was not plucked out of a hat, nor derived from some mathematical formula, but it was the force structure deduced from the maritime tasks that were handed to the Department of the Navy. The national strategy is decided by the President of the United States, along with and in consultation with the National Security Council, and embodied in National Security Decision Directives [NSDD's], and so forth. That, in turn, is, of course, simply the President setting the strategy, to allocate resources to deal with the security of the country based on our vital interests.



THE 600 SHIP NAVY

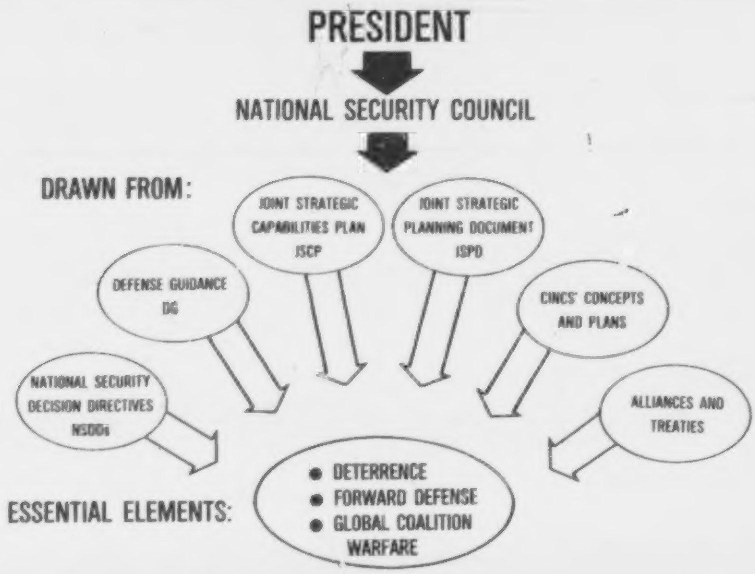
- STRATEGY
  - NATIONAL STRATEGY
  - MARITIME STRATEGY
- FORCES
  - 600 SHIPS
  - READINESS & SUSTAINABILITY
- AFFORDABILITY
  - COMPETITION
  - MANAGEMENT REFORM

The way I will proceed, then, will be to start with our national strategy. Today it is very well defined. It is based on our vital interests around the globe. I will then proceed to review how we have derived our maritime strategy from that national strategy and the tasking that the Navy and Marine Corps are given by that national strategy.

After a review of the strategy, the maritime strategy, I will then explain how we derived from that strategy the force structure, the numbers of ships, units, facilities and aircraft necessary to carry out that strategy, the 600 ships, if you will.

Lastly, I would like to go into the issue of affordability. Can we afford a 600-ship Navy for the long term?

NATIONAL MILITARY STRATEGY



PRESIDENT

NATIONAL SECURITY COUNCIL

DRAWN FROM:

NATIONAL SECURITY DECISION DIRECTIVES NSDDs

DEFENSE GUIDANCE DG

JOINT STRATEGIC CAPABILITIES PLAN JSCP

JOINT STRATEGIC PLANNING DOCUMENT JSPD

CINCS' CONCEPTS AND PLANS

ALLIANCES AND TREATIES

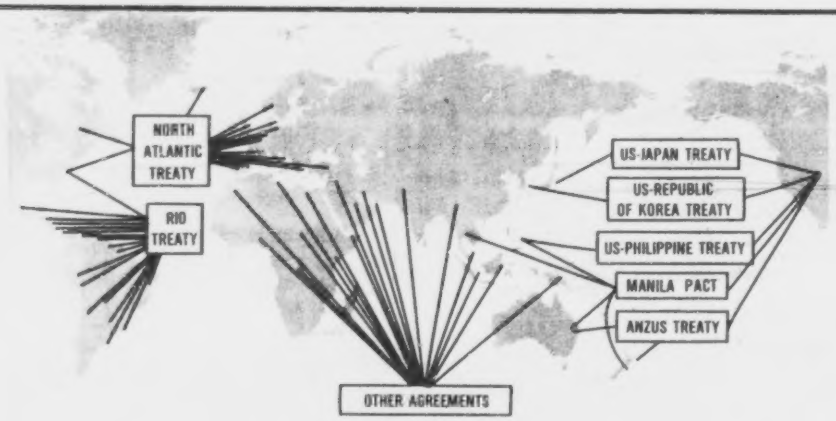
ESSENTIAL ELEMENTS:

- DETERRENCE
- FORWARD DEFENSE
- GLOBAL COALITION WARFARE

The national military strategy. First, as I have said, it is derived from a commonsense study by the National Security Council of where our vital interests lie. We have some 40-plus treaty obligations that roughly reflect our vital interests as leaders of a coalition, a free world coalition, dependent on energy and resources globally, dependent on a free trade commerce on which all of our economies are intertwined. From that, a coherent national strategy is established by the President of the United States. It is embodied in a number of documents beginning with NSDD's. That national strategy is, in turn, given to the Secretary of Defense as guidance to prepare the Defense Guidance that, in effect, divides up the tasking within the Department of Defense as to what objectives must be met to carry out the national strategy. So we in the military departments are provided defense guidance, as are the Joint Chiefs in their planning. They produce several plans to implement the national strategy, which are listed on this slide.

The Commanders in Chief, the unified and specified commanders, produce their plans and all of them go to produce what is the objective of the entire effort, detering hostile action against our interests with a forward deployment policy to meet the alliance commitments of our global coalition, to deal with the threat to free world security.

ALLIANCES, TREATIES AND AGREEMENTS


NORTH ATLANTIC TREATY
RIO TREATY
US-JAPAN TREATY
US-REPUBLIC OF KOREA TREATY
US-PHILIPPINE TREATY
MANILA PACT
ANZUS TREATY
OTHER AGREEMENTS

FORMAL ALLIANCES AND TREATIES WITH 43 COUNTRIES
MANY OTHER SIGNIFICANT BILATERAL AGREEMENTS

This is a busy schematic that shows the web of alliances, treaties and Executive agreements, some 43 formal alliance and treaty partners that reflect reasonably well our dependencies and our vital security interests around the world.

THE MARITIME STRATEGY: GLOBAL MARITIME ELEMENTS OF U.S. NATIONAL MILITARY STRATEGY

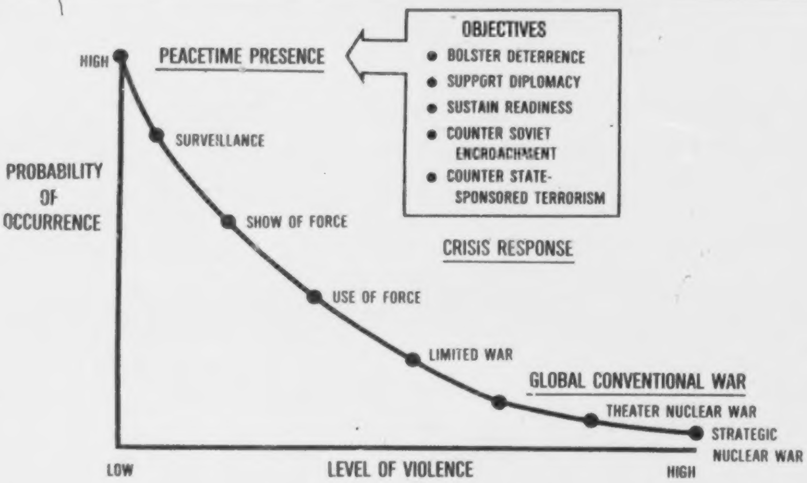
GOALS

- CONTROL CRISES
- DETER WAR
- IF DETERRENCE FAILS:
  - DESTROY ENEMY MARITIME FORCES
  - PROTECT US/ALLIED SEA LINES
  - SUPPORT US/ALLIED LAND BATTLES
  - SECURE FAVORABLE WAR TERMINATION

ALWAYS IN CONJUNCTION WITH ALLIES AND SISTER SERVICES

Here is the tasking that is given to maritime strategy as part of U.S. national military strategy. First, we must deal with crises around the world. We must deter wars, small and great, and of course, you cannot do it with bluff. You can't do it with tough declarations. You must have the capability to prevail if deterrence fails. And if deterrence fails, our tasking to carry out the national military strategy are listed in those four bullets: destroying enemy maritime forces; protecting the sea lines; supporting the land battles; and securing prompt and favorable war termination.

THE MARITIME STRATEGY: APPLICATIONS OF MARITIME POWER

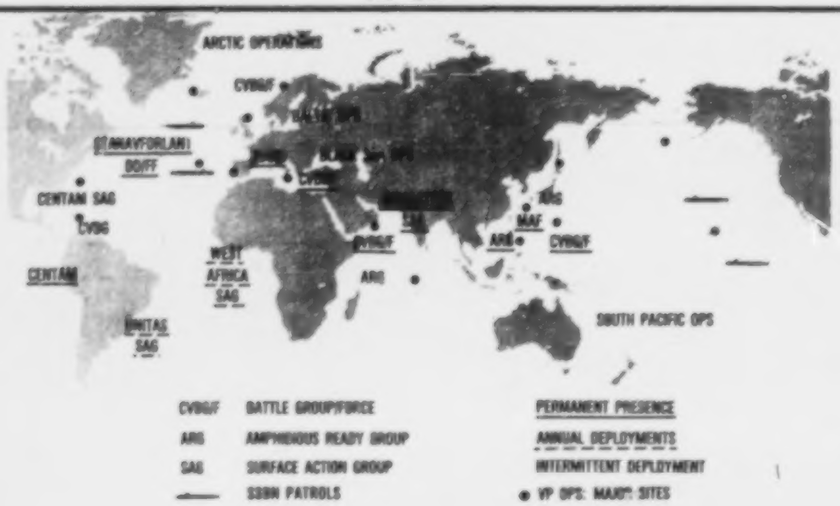


Deterrence is made more complicated by the academic community than it really is. It is a simple concept. It is a continuum of violence that threatens our vital interests, running all the way from the terrorism we have seen so tragically in recent days at one end of the spectrum of violence, all the way to thermonuclear war at the other end.

We must be able to deter this full range of violence without any holes in that continuum, and that is how we plan our deterrent strategy.

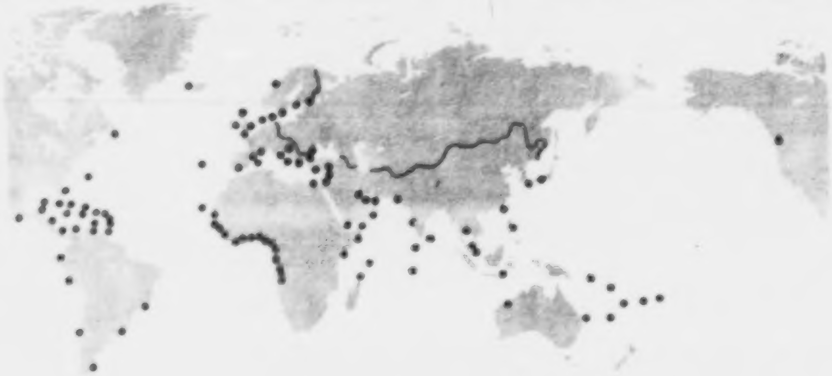
First, let's look at the peacetime presence end of that continuum of deterrence.

THE MARITIME STRATEGY: PEACETIME MAJOR NAVAL COMMITMENTS
FY 84


ARCTIC OPERATIONS
CVBG/F
BALTIC OPS
STANAVFORLANT
DD/FF
CENTAM SAG
CVBG
CENTAM
WEST AFRICA SAG
UNITAS SAG
CVBG/F
ARG
ARG
MAF
ARG
CVBG/F
SOUTH PACIFIC OPS
CVBG/F BATTLE GROUP/FORCE
ARG AMPHIBIOUS READY GROUP
SAG SURFACE ACTION GROUP
SSBN PATROLS
PERMANENT PRESENCE
ANNUAL DEPLOYMENTS
INTERMITTENT DEPLOYMENT
VP OPS: MAJOR SITES

This gives you a snapshot from fiscal year 1984 of our maritime commitments that are derived from national policy. More than 110,000 Navy and Marine men and women are currently at sea, overseas, right now, and, of course, the Navy and Marine Corps operate more than the other services in peacetime; very similar to the way they will operate in wartime. We are forward deployed 24 hours a day every day of every year and these current examples taken from fiscal year 1984 give you a good snapshot. Those underlined solidly are standing obligations, permanent presence obligations. The dotted lines are annual deployment obligations. The submarines or SSBN patrols, amphibious ready groups are also listed.

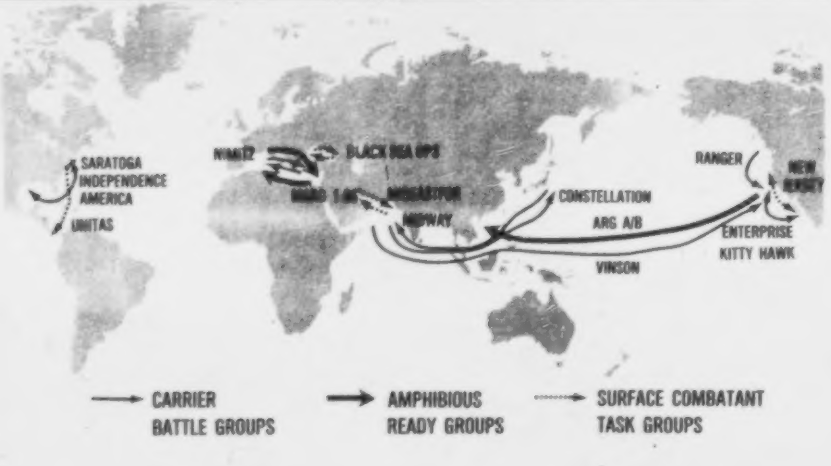
THE MARITIME STRATEGY: PEACETIME
U.S. NAVAL PRESENCE
PORT VISITS



1984: 108 COUNTRIES

Next, military diplomacy, if you will, the peacetime presence around the world. In 1984, 108 countries were visited by the Navy and the Marine Corps. This is a snapshot of those visits, visits that so often are taken for granted, but have a very material impact around the world in stabilizing the peace, reminding friend and foe alike that we are able and have the will to defend our interests and those of our treaty allies. The recent visit to India is another example of the more diplomatic uses of naval visits.

THE MARITIME STRATEGY: PEACETIME OPERATIONS
FORCE EMPLOYMENT
(MAJOR USN/USMC ELEMENTS)
APRIL-JUN 1985


SARATOGA
INDEPENDENCE
AMERICA
UNITAS
NIMITZ
BLACK SEA OPS
MARG 1-85
MIDEASTFOR
MIDWAY
CONSTELLATION
ARG A/B
VINSON
RANGER
NEW JERSEY
ENTERPRISE
KITTY HAWK
CARRIER BATTLE GROUPS
AMPHIBIOUS READY GROUPS
SURFACE COMBATANT TASK GROUPS

Force employment. Again, only a snapshot of a 3-month period and only the major units during that three months. A typical standard, 3-month snapshot.

Why don't you give a quick summary of that, Jim.

Admiral **Watkins**. What is shown on this slide, Mr. Chairman, are the typical movements of naval forces during any quarter. You can see the ships that are operating off the coast of the eastern seaboard. They are preparing for deployment for the most part. They are running through their carrier qualifications, going through their various checks getting ready to deploy. They are also the surge forces for the United States to respond quickly to contingencies that could come up in this time of violent peace.

UNITAS operations are underway today. This is an operation with forces from the entire hemisphere. It is one of the most aggressive and most modern of the actions we are taking in compliance with our treaty commitments any place in the world today, because of the urgency that the navies of this hemisphere feel relative to the world situation. UNITAS was very successful last year, our 25th year, and a very important operation to keep the influence in this hemisphere focused on our common potential enemies, like the Soviet Union, the drug trade and in fact all of the things that could destroy Western democracies.

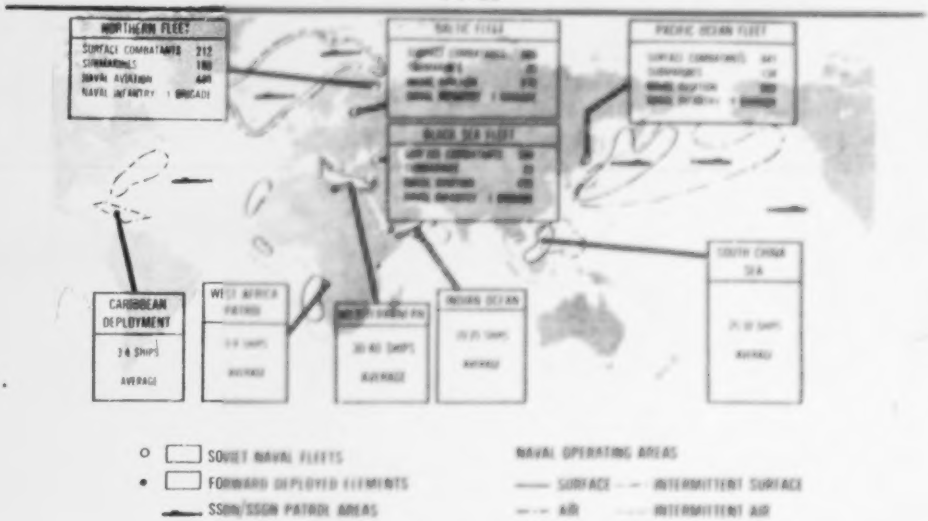
You can see the operations in the Mediterranean there with the *Nimitz* not far off Lebanon, because of the situation there. The Marine amphibious ready group is typical of the Marine presence in the Mediterranean. In many cases, you will find overlaps between the rotating carriers deployed to the Mediterranean in order to meet commitments to NATO which have been very strongly supported since the end of World War II.

You can see the flow of carrier battle groups into the Indian Ocean, where they can be easily moved from one ocean to the other. The Atlantic Fleet sometimes provides the carrier to the Indian Ocean—although today it happens to be the Pacific-based U.S.S. *Constellation*. U.S.S. *Midway* will be going in within the next few days to relieve the *Constellation* which will then come home, as you can see by the arrow. Amphibious ready groups are moving all over the world to train and to be ready for potential contingencies.

So, what you are seeing on these charts are 110,000 sailors and marines at sea that the Secretary talked about, and that is a very typical snapshot of Navy comings and goings, one-third of the operational force of the Navy forward deployed at all times.

SOVIET NAVY ACTIVE GLOBAL PEACETIME POSTURE

FY 85

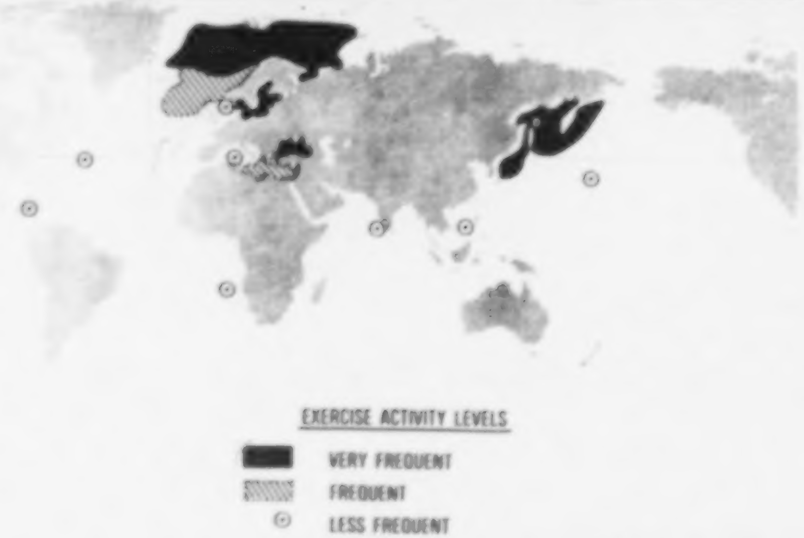

NORTHERN FLEET
SURFACE COMBATANTS 212
SUBMARINES 180
NAVAL AVIATION
NAVAL INFANTRY 1 BRIGADE
BALTIC FLEET
PACIFIC OCEAN FLEET
BLACK SEA FLEET
SOUTH CHINA SEA
CARIBBEAN DEPLOYMENT
3-4 SHIPS
AVERAGE
WEST AFRICA PATROL
AVERAGE
30-40 SHIPS
AVERAGE
INDIAN OCEAN
AVERAGE
AVERAGE
SOVIET NAVAL FLEETS
FORWARD DEPLOYED ELEMENTS
SSBN/SSGN PATROL AREAS
NAVAL OPERATING AREAS
SURFACE
INTERMITTENT SURFACE
AIR
INTERMITTENT AIR

Secretary LEHMAN. Of course, we wouldn't need a Navy if there weren't hostile forces threatening our maritime interests. This gives a snapshot from fiscal year 1985, this year, of the Soviet Navy peacetime posture. It is a very busy slide and I apologize for that, but it is a very busy navy that the Soviets have. As you see, starting at the 12 position and proceeding clockwise, you have the Baltic Fleet with 390 surface combatants, 38 submarines, and 270 aircraft, and one marine brigade. Continuing around, the Pacific Ocean Fleet with nearly 500 ships and 130 subs. In the South China Sea they have an average of 25 to 30 ships all the time. The Indian Ocean—20 to 25 ships average in the Indian Ocean area.

The Mediterranean—30 to 40 ships average. The West Africa Patrol, five to eight ships on the average. The Caribbean deployment, which is a phenomenon of just this decade, regular forward deployments with an average of three to four ships. The Black Sea Fleet, 380 surface combatants and a Marine infantry brigade.

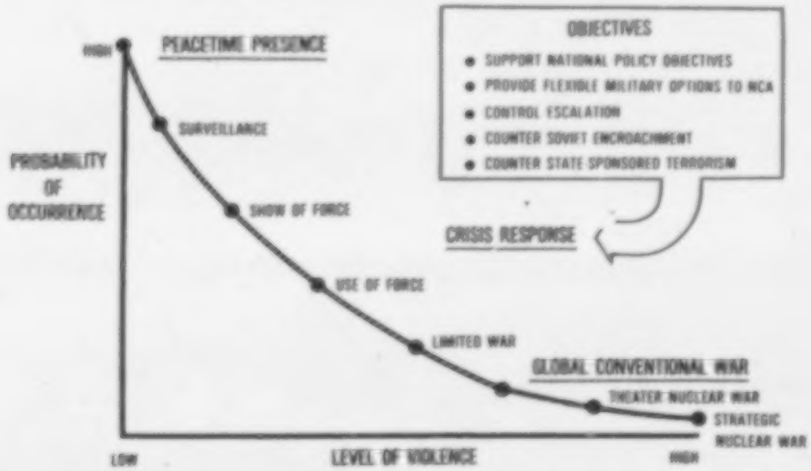
And, of course, the Northern Fleet, 212 surface combatants, 180 submarines, and another marine brigade. So we have a very active Soviet Navy, depending on whose counting rules you use, numbering 1,500 to 1,700 ships. And they are now forward deployed in ways which were unbelievable just 10 years ago. They are right in amongst our vital areas, our choke points and our exercises at all times.

SOVIET NAVAL PARTICIPATION IN MAJOR EXERCISES: 1984


EXERCISE ACTIVITY LEVELS
VERY FREQUENT
FREQUENT
LESS FREQUENT

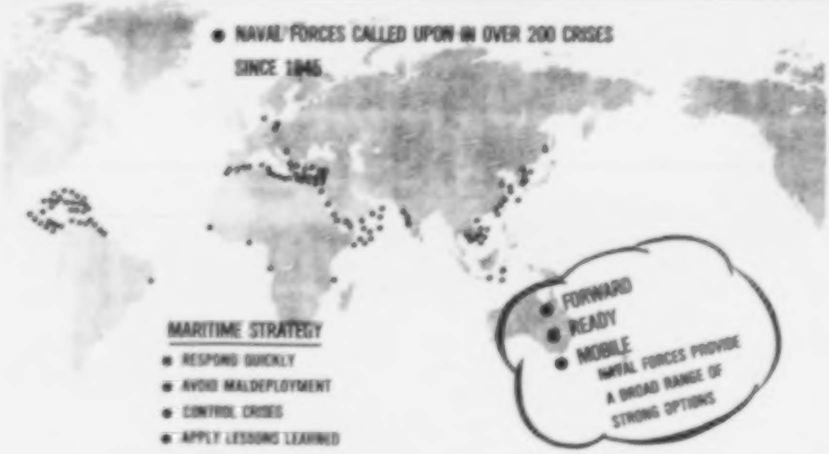
This is just a schematic to show areas of frequent, regular, and occasional exercises. The white shows area of almost constant exercising by the Soviet Fleet; the striped areas; regular exercising; and the asterisked areas, occasional Soviet exercising.

APPLICATIONS OF MARITIME POWER


OBJECTIVES
SUPPORT NATIONAL POLICY OBJECTIVES
PROVIDE FLEXIBLE MILITARY OPTIONS TO NCA
CONTROL ESCALATION
COUNTER SOVIET ENCROACHMENT
COUNTER STATE SPONSORED TERRORISM
CRISIS RESPONSE
HIGH
PEACETIME PRESENCE
SURVEILLANCE
PROBABILITY OF OCCURRENCE
SHOW OF FORCE
USE OF FORCE
LIMITED WAR
GLOBAL CONVENTIONAL WAR
THEATER NUCLEAR WAR
STRATEGIC NUCLEAR WAR
LOW
LEVEL OF VIOLENCE
HIGH

Back to the continuum of deterrence, let us look at crisis response, or crisis management.

THE VIOLENT PEACE

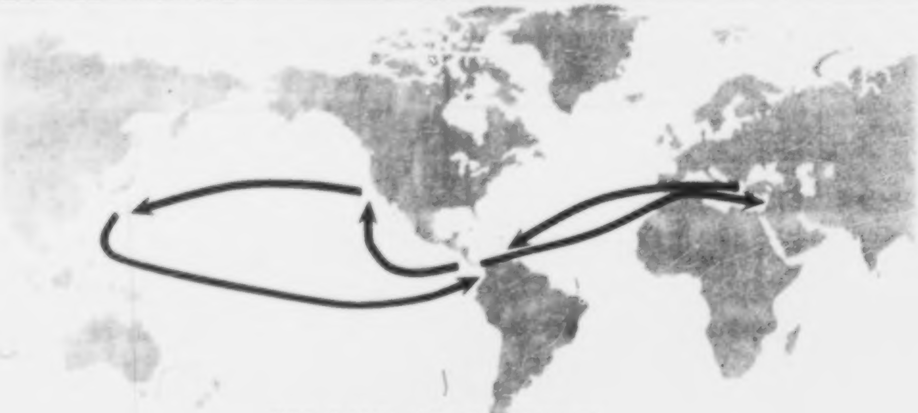

NAVAL FORCES CALLED UPON IN OVER 200 CRISES SINCE 1945
MARITIME STRATEGY
RESPOND QUICKLY
AVOID MALDEPLOYMENT
CONTROL CRISES
APPLY LESSONS LEARNED
FORWARD
READY
MOBILE
NAVAL FORCES PROVIDE A BROAD RANGE OF STRONG OPTIONS

THE NATION'S PRINCIPAL MILITARY INSTRUMENT IN CRISES

During the era of violent peace, since 1945, naval forces have been deployed more than 200 times as the direct crisis management force. I served on the National Security Council staff for 5 years. I never attended a meeting in the cabinet office or the Oval Office or with the National Security staff where the first question asked, whenever there was a crisis, every time by the President and by his National Security Adviser—whenever there was a crisis wasn't "Where are the carriers?; Where is the Marine Amphibious Ready Group?" That is always question No. 1. Statistically, in the actual use of force in the management of those wars that never happened, the Navy and Marine Corps were used 80 percent of the time, We are the rapid deployment force and the crisis management force, because we are forward deployed.

This is not to say that the other services have not responded just as rapidly and just as effectively when called upon, but the mobility of maritime forces makes them the forces on-scene in crisis after crisis.

THE MARITIME STRATEGY: CRISIS RESPONSE
USS NEW JERSEY
JUNE 1983 - MAY 1984



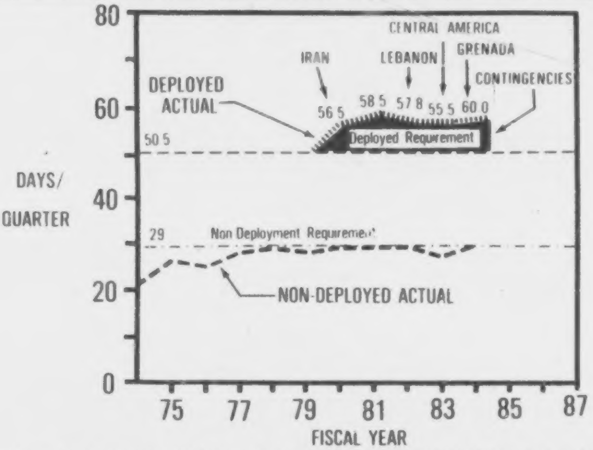
322 DAYS / 76,000 MILES

Another example of the mobility which this subcommittee is very familiar with is the 11-month cruise of the battleship *New Jersey* from June 1983 until May 1984: 322 days and 76,000 miles on what was originally to be a shakedown cruise. It deployed all the way to the western Pacific, engaged in exercises of Southeast Asia, was rapidly called back because of the crisis in Central America, operated for 3 weeks of Central America and, because of the marines ashore in Lebanon, was ordered at speed directly to Lebanon, where it stayed until May of 1984, a remarkable illustration of the complete flexibility of maritime force.

I might add that throughout that 11-month cruise, that ship did not go below C-2 for materiel or personnel readiness, which is quite an accomplishment.

THE MARITIME STRATEGY: PEACETIME AND CRISES

U.S. NAVY SHIP OPTEMPO



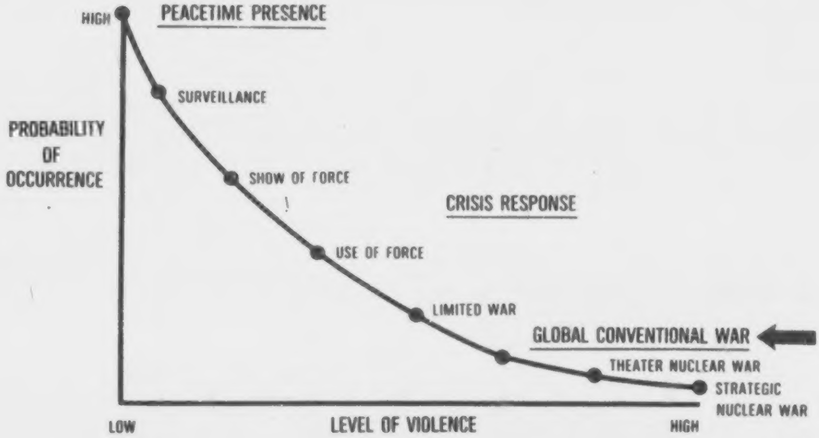
SINCE 1978 DEPLOYED FORCES HAVE BEEN OPERATED BEYOND READINESS REQUIREMENTS TO COVER CONTINGENCIES:

- CONTINUOUS INDIAN OCEAN PRESENCE
- CENTRAL AMERICA
- LEBANON
- GRENADA

This gives you, a look at the issue of U.S. peacetime and crisis OPTEMPO, which is one of the most controversial and least understood of budgetary issues. This illustrates the fact that today we are operating today at a fleet OPTEMPO nearly 20 percent higher than at the Vietnam war. As you can see here, and have already seen in this subcommittee and the full committee, the toll in inefficient use of resources that driving the fleet at such a pace has taken in past years has been a very false economy.

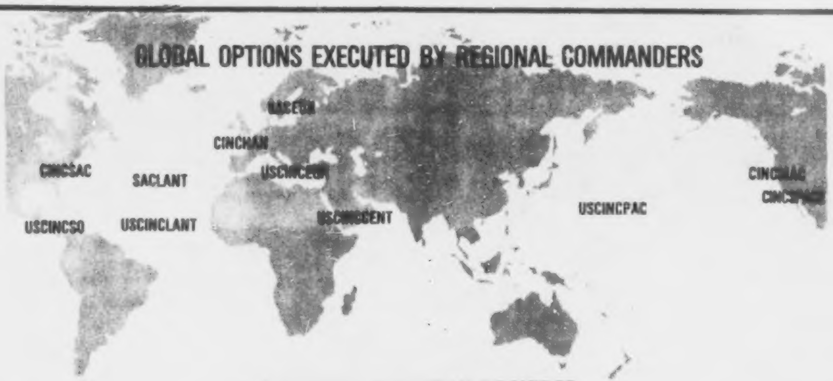
During the 1970's, we cut our fleet in half while simultaneously doubling the operational commitments that we had. Of course, the Navy and Marine Corps kept saluting and saying, "Aye-aye, we will do more with less," and as a result, we ended up with a huge backlog of ships overdue for overhaul. We had the lowest retention rates we have ever had and had high accident rates; we had a fleet that was simply not ready to go into harm's way. A major part of the rationale to expand back to a 600-ship fleet is that the world is not getting any safer. Our peacetime commitments our crisis management, and our naval diplomacy obligations will not lessen. We must increase the numbers of ships carrying that burden to get the optimum readiness at the lowest cost to the taxpayer in using our resources.

THE MARITIME STRATEGY: APPLICATIONS OF MARITIME POWER



Turning back to the continuum of deterrence, let's talk about the Navy's role in a global conventional war.

MARITIME STRATEGY—GLOBAL MARITIME OPTIONS


GLOBAL OPTIONS EXECUTED BY REGIONAL COMMANDERS
SACEUR
CINCHAN
CINCSAC
SACLANT
USCINCEUR
USCINCSO
USCINCLANT
USCINCCENT
USCINCPAC
CINCMAC
CINCSPACE

MARITIME STRATEGY PROVIDES

- BROAD, FLEXIBLE FRAMEWORK
- INTEGRATED GLOBAL VIEW OF COMPETING PRIORITIES

It is important to understand the levels of analysis we are talking about when we say "strategy." Strategy has different meanings when applied to different levels of discourse. When we deal with the maritime strategy that the Chief of Naval Operations, the Commandant and I carry out for the Secretary of Defense, we are speaking about the most intelligent application of Navy and Marine Corps resources and force structure to accomplish the overall national strategy. We do not fight the battles; we do not pick the targets; we do not pick the times and places of deployments. We provide the resources and the trained and modernized forces for the theatre commanders listed here on this chart to apply their war-fighting strategies. All too often, this confusion is rampant in the literature from the "Beltway Bandits" and the think tanks, and the armchair strategists in confusing the one with the other.

It is a natural temptation for everyone in Washington, DC, to put on Napoleon's hat and decide where the ships are going to be deployed and which objectives are going to be taken first and second. It is none of our business here in Washington, whether we are on the Joint Staff or the NSC staff or the OSD staff or the secretariats of the services to do that kind of micromanagement.

The system is currently set up for the unified and specified commanders to fight the actual wars. They report directly to the Secretary of Defense and that is how we derive the maritime options for carrying out national strategy.

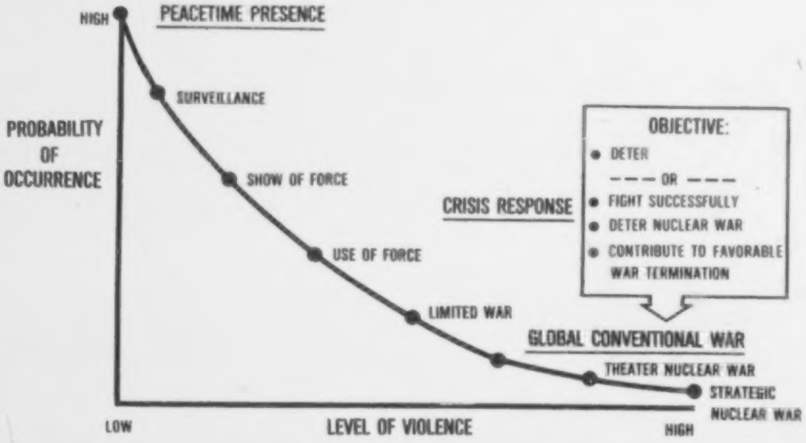
Now, back to the continuum, I would like to now ask Admiral Watkins and General Kelley to address how the war would actually be fought if deterrence fails and we enter a maritime conflict.

Mr. BENNETT. Before he does that, Mr. Swift has given me a news dispatch saying that Mr. Berri, a leader of the Shiite Moslems holding the 40 American hostages said today the hostages will not be released until the United States pulls the warships back from the eastern Mediterranean. Of course, you are in no position to make a comment about that—and I wouldn't want you to this quickly, but it does sort of illustrate the importance of where your ships are at a particular time in terms of diplomacy and international affairs. I don't think it could be better illustrated than by that particular news item that just came off the wire, and Mr. Swift gave to me.

I am not asking for any comment on it at this point. I am just saying that that illustrates the importance of having an important ship or ships at a particular location at a particular time.

Admiral.

APPLICATIONS OF MARITIME POWER



Admiral **Watkins**. Mr. Chairman, we come now onto the right-hand side of the spectrum of violence versus the probability of occurrence, so I am going to be dealing now with the force-building base on which we make our decisions and then we are going to be talking about the brink of war, or transition to conflict, and how important certain processes become which will lead us into force structure discussions later on.

SOVIET NAVAL STRATEGY

- SOVIETS EMPHASIZE SURPRISE
  - LENIN: "COMMUNISTS MUST BE PREPARED. . .TO CONCEAL THE TRUTH. . . ."
- AT THE BRINK OF WAR: A RANGE OF OPTIONS
  - LEAD WITH SURROGATES
  - FLUSH NAVY
  - EXTENDED BASTION FORCE
- TO DETER, THE MARITIME STRATEGY
  - LIMITS SOVIET OPTIONS
  - RAISES SOVIET UNCERTAINTIES

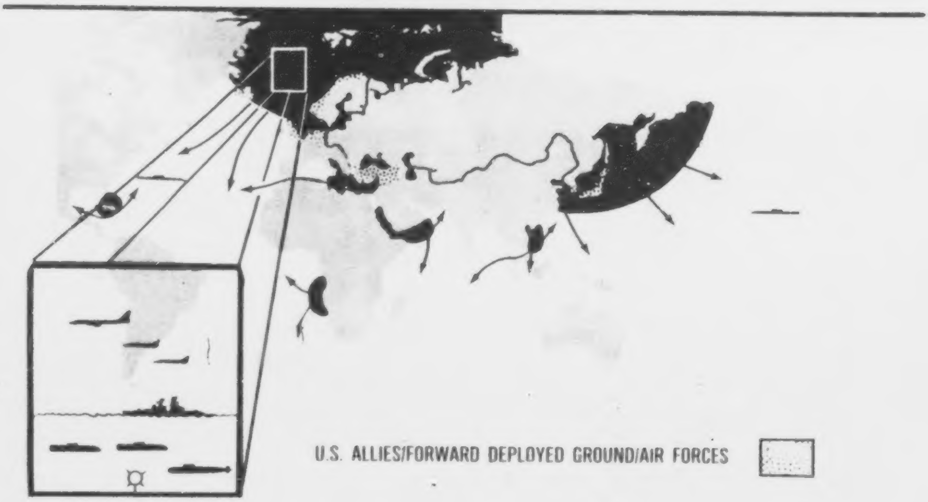
The first thing that we must do in all of our strategy development is to understand the Soviet naval strategy as well. We spend a great deal of time on this. We devote an entire group at our War College to this duty continuously, fed by the best and the brightest from sea and by very special study groups with some of the best minds in the country, to help us understand their strategy. Of course, we combine the War College studies with national intelligence estimates and all other intelligence gathering networks. We know that the Soviets emphasize surprise and on the chart there is a quote from Lenin: "Communists must be prepared to conceal the truth." Concealment and deception is their strong suit. We must deal with that edict and we must deal with it swiftly and early in order not to put our own forces in jeopardy.

At the brink of war, the Soviet options shown there are that: first, they lead with their surrogates, as they are doing today worldwide, to avoid conflict and to avoid superpower confrontation. They don't want a superpower confrontation; I am convinced of that. So, they are going to use their surrogates to achieve objectives as best they can and surround the various alliances that we have in the Western World by the touchstones which I will talk a little bit about later. Certainly the Cubas, Libyas, Angolas, Afghanistans, Ethiopias, Yemens, North Vietnams, and North Koreas, are all part of these stepping stones around the world to outflank our alliances.

They will flush their navy and move them out of port. We have seen them do that in exercises, We understand that mentality because they really feel very strongly that the extension of Motherland Russia is out to somewhere between 2,000 and 3,000 kilometers, moving out steadily as time goes on as they build only their 25-year-old navy.

They are going to use their navy defensively initially, primarily because they want to control conflict timelines. They want to confine the regions of potential conflict to where they can exert maximum leverage. They would love it if we would say, "King's 'X' on the northern and southern flanks of NATO; King's 'X' in Northeast Asia and in the northwest Pacific while I take you on in Central Europe." We have a counter strategy to disallow that so that they cannot pick their times; this will generate great uncertainties. We must develop a deterrence strategy, then, that limits the Soviet option and raises the uncertainty.

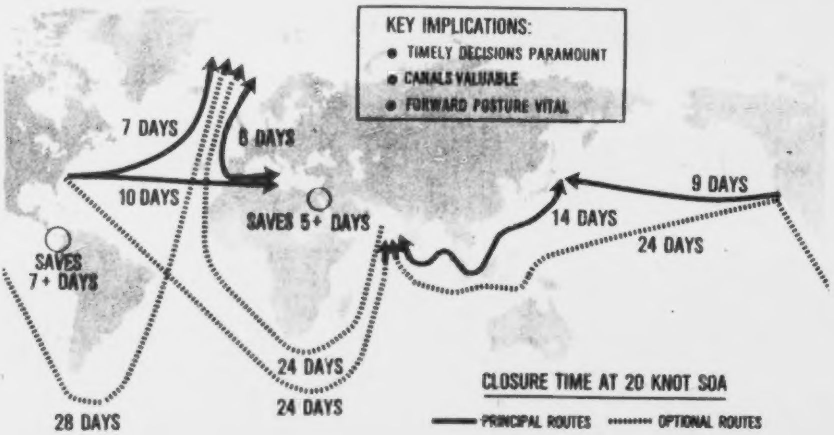
GLOBAL WAR: SOVIET INITIAL WARTIME MARITIME OPTIONS



Here is what I talked about. In the red there, you see this 2,000- to 3,000-mile extension of the Soviet land mass. This is very important to them and you can see why the sensitivities to our operations, as when we moved north of certain lines off Norway last year and the Soviets come out en masse. This perceived encroachment is very worrisome to them. For example, they believe very strongly that the Bering Sea in the Northwest Pacific is their sea or that the Sea of Okhotsk is theirs. As they reach out further and further, therefore, these new arcs of influence become the basis on which our counter strategies can be built.

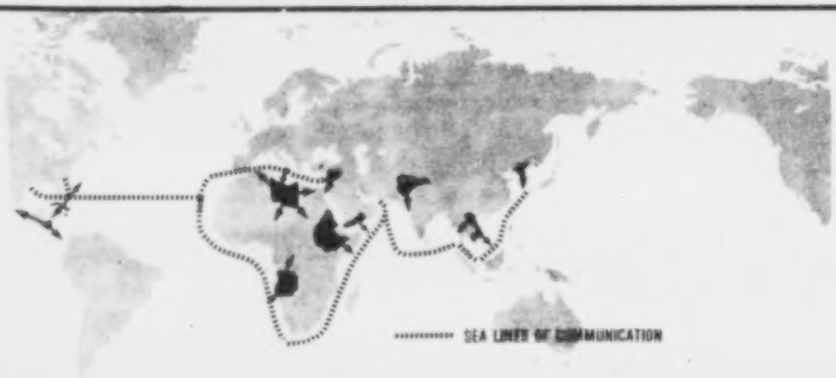
You can see how one arc engulfs Japan. You can see how another engulfs Norway, critical to the NATO alliance defense. This is where they are going to be putting most of their emphasis. The arrows there merely show the leakage forces that are going to move out as they build their Navy in sufficent numbers to allow them to extend their strategies to the white areas around the world, these so-called stepping stones which I talked about earlier extend their global naval reach.

GLOBAL USE OF MOBILE, FLEXIBLE FORCES


KEY IMPLICATIONS:
• TIMELY DECISIONS PARAMOUNT
• CANALS VALUABLE
• FORWARD POSTURE VITAL
7 DAYS
8 DAYS
10 DAYS
SAVES 5+ DAYS
SAVES 7+ DAYS
9 DAYS
14 DAYS
24 DAYS
24 DAYS
24 DAYS
28 DAYS
CLOSURE TIME AT 20 KNOT SOA
PRINCIPAL ROUTES
OPTIONAL ROUTES

This is a very important slide that may seem obvious to everyone. But, it is very important we understand we are talking about global use of mobile flexible forces, forward deployed. You can see the time lines here for our combatants and support forces to move at 20 knots anywhere around the world. You can see the extreme importance of the Panama Canal and the Suez Canal in repositioning forces and how much longer it takes to move around the sealines, elsewhere. These timelines, then, become very germane to the contingency plans that the unified commander must follow and that the national policy must consider. This means that these forward deployed mobile forces must already be out there for our particular strategy to work because of the dead times that otherwise would come into play.

GLOBAL WAR:
UNCERTAINTY: ASSISTANCE & OPPORTUNISM
SOVIET ALLIES, FRIENDS, AND SURROGATES



The next slide talks a little bit more about the Soviet surrogates I talked about and how they sit astride the sealines of communications. When you look at the movement of cargo and POL-carrying ships around the world, you'll find they follow these sealines, and in the thousands. For example, at any time in the Indian Ocean, there are 5,000 ships plying those waters. Yet, when you sail in those waters, unless you are right on those sealines, you see nothing.

It is a big ocean hiding lots of ships SLOCS are very important to the world, and you can see how the Soviet surrogates are nicely placed around the alliances as though to outflank us. Thus, our alliances become very important in peacetime. For example, our relationship with such important nations as our Central American friends, enriched by military exercises between individual nations become very important to the overall concept of building an integrated hemisphere maritime strategy.

DRAWN FROM NATIONAL & NATO STRATEGY GUIDANCE

MARITIME STRATEGY OBJECTIVES

- OPERATING IN CONJUNCTION WITH ALLIES AND SISTER SERVICES
  - PROVIDE POSITIVE PEACETIME PRESENCE
  - CONTROL CRISES
  - DETER WAR

----------- IF DETERRENCE FAILS -----------

- CONTRIBUTE TO FAVORABLE WAR TERMINATION
  - DESTROY ENEMY MARITIME FORCES
  - PROTECT SEA LINES
  - SUPPORT LAND BATTLES

In building this strategy, for simplicity, we have tried to divide it into three distinct parts that have no time lines. There is no Maginot Line here. There is no such rigidity. For simplicity, we are going to talk about phase I as being the deterrent or transition phase, where we try to the last,—with every ounce of strength we have, to control the escalation. But we must recognize, as the Secretary pointed out, that to transition, we must have the credible strength to carry it out.

That leads us to phase II, which is seizing the initiative, establishing the maritime superiority, our objective. Next comes phase III, carrying the fight to the enemy, winning the battle and bringing the war to termination on terms favorable to the United States. So, basically our strategy follow this pattern. Obviously, things can move very quickly in one region, or they could be slower in another. There is no time line connected, as I mentioned earlier.

THE MARITIME STRATEGY:
BATTLE FORCE COMPOSITION

NOTIONAL BATTLE FORCES

PEACETIME	WARTIME
1 CV/CVN	2-4
1-2 CG/CGN	4-8
2-3 DDG	4-8
2-3 DD	4-8
1-3 SSN	3-4

AIRWING

JFK AIRWING	
24	F-14
28	A-6
10	S-3
6	SH-3H
5	E-2C
5	EA-6B
78	

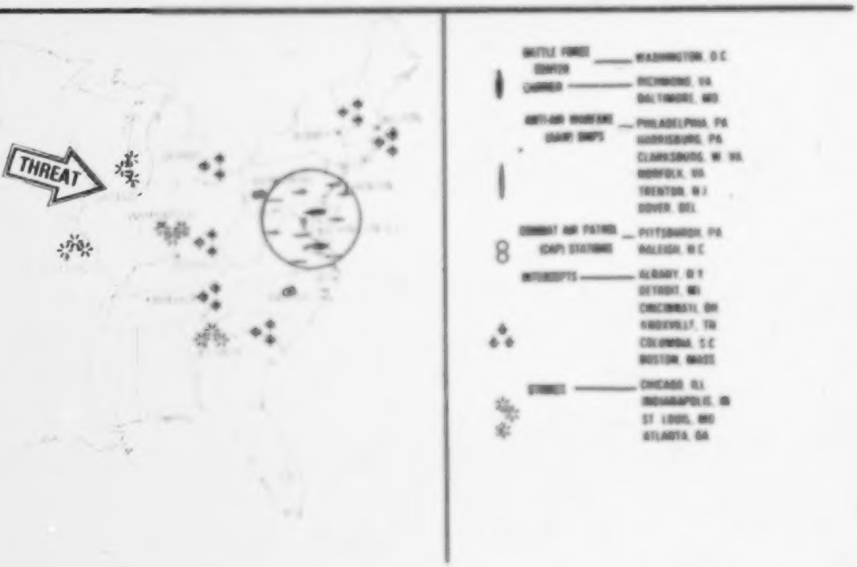
NOTIONAL AIRWING	
20	F-14
20	F/A-18
20	A-6
10	S-3
6	SH-60F
5	E-2C
5	EA-6B
86	

CORAL SEA (F/A-18) AIRWING	
48	F/A-18
14	A-6
6	SH-3H
4	E-2C
4	EA-6B
76	

But before we go on, I think it is important that we have a baseline reference. What is a battle group? We talk a lot about carrier battle groups, and I've shown here for your information a notional battle group. In peacetime, on the left, it consists of some 7 to 12 ships with 1 carrier at the center, if you will. In wartime, that number could expand to two to four carriers operating in a region with more ships added, so they can become very powerful forces. They can come together or they can separate. This capability gives us a great deal of flexibility.

Now, those carriers have airwings, as defined below there. The airwing on the left, a so-called *John F. Kennedy* airwing, is oriented toward our attack capability. The one on the right, the *Coral Sea* and *Midway,* are more fighter-attack capable. In the middle are the notional airwings for the remainder of the 15 carrier battle group airwings. As you can see, they are a split of both attack—fighter and attack and miscellaneous aircraft. This combination gives us the best sort of flexibility in the way we might assign forces for carrying out a certain mission.

BATTLE FORCE
U.S. NAVY NOTIONAL DISPERSED FORMATION

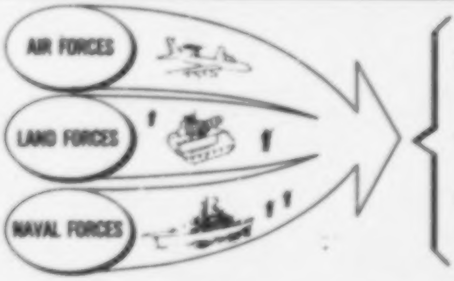

THREAT
BATTLE FORCE CENTER — WASHINGTON, D.C.
CARRIER — RICHMOND, VA
BALTIMORE, MD
ANTI-AIR WARFARE (AAW) SHIPS — PHILADELPHIA, PA
HARRISBURG, PA
CLARKSBURG, W. VA
NORFOLK, VA
TRENTON, N.J
DOVER, DEL
COMBAT AIR PATROL (CAP) STATIONS — PITTSBURGH, PA
RALEIGH, N.C
INTERCEPTS — ALBANY, N.Y
DETROIT, MI
CINCINNATI, OH
KNOXVILLE, TN
COLUMBIA, S.C
BOSTON, MASS
STRIKES — CHICAGO, ILL
INDIANAPOLIS, IN
ST. LOUIS, MO
ATLANTA, GA

The next point of reference I would like to make is on a carrier battle group formation.

You know, many times we hear the self-appointed strategic experts in town talk about how you can eliminate one of these carrier battle groups because, as this photograph shows, of how they form. That tight formation might have been the way we did it in World War II, but this photograph shows you a typical modern two-carrier battle group formation. It extends over an area as large as the entire central and eastern part of the United States; 56,000 square miles is what those two battle groups now cover in this particular formation, but we could double that with two battle groups next to each other. So there is a great deal of flexibility afforded. Never do we concentrate large numbers of ships in one tiny little area, as we had to in World War II, because of nuclear weaponry, because of ability now to extend our reach and early warning, and because of the capability to reach out and effectively use these forces anywhere in the world. This is a very important concept that should be understood.

MARITIME STRATEGY—JOINT OPERATIONS

MARITIME AND LAND CAMPAIGNS INTERRELATED



- NAVAL OPERATIONS SUPPORT LAND FORCES
- LAND/AIR OPERATIONS SUPPORT MARITIME FORCES
- GOALS: DETERRENCE—OR—FAVORABLE WAR TERMINATION

U.S. INTERSERVICE COOPERATION INITIATIVES

USN-USAF MOA SEP 1982
USN-USCG MOA MARCH 1984
USA-USAF MOA (USN) MAY 1984
USN-USA MOA JULY 1984

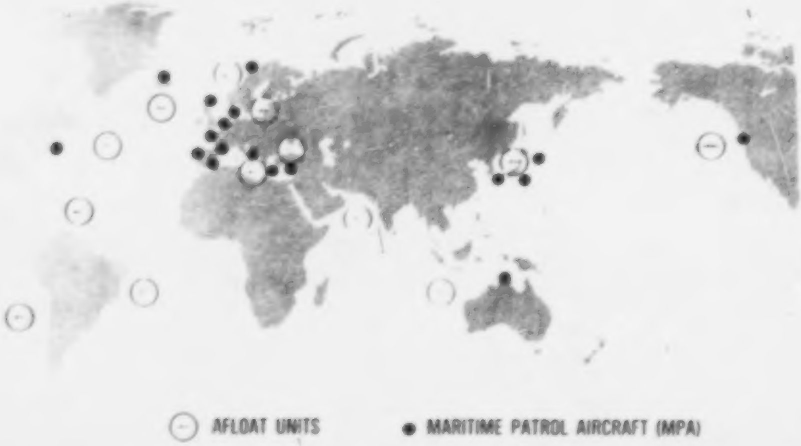
USAF MARITIME ROLES
MARITIME DEFENSE ZONES
INTEROPERABILITY
SEALIFT

I would like to point out that in the maritime strategy, often people accuse the Navy of trying to fight the war alone. We are not doing that. We are working very closely with sister services as this particular slide shows. You can see down there at the bottom the rack-up of interservice cooperative initiatives.

When I came in this assignment, I got with Charlie Gabriel, the Chief of Staff of the Air Force, and we developed a memorandum of agreement based on many prior memorandums. The most recent one is a very global and overarching agreement which brings together in a way that we simply have not attained in past years. Today it is a matter of standard operating procedures for the AWAC's to control our F-14's, for our E-2C's to control their F-15's; for our ships to control their aircraft. We have complete interoperability with the Air Force. They will tank us; we tank them. That kind of procedure is working worldwide in all of our joint exercises. All of our unified commanders are now using these tactics and we are very excited about that.

In addition, you will see a Navy linkage with the Army and Air Force Memorandum of Agreement of last year. This is very important because we plug 11 of our modules into their 31 initiatives so that we are again coupled in interoperability within our own services. This is very important in order to cut down redundancy of unnecessary weapons system to make sure our R&D and other efforts are coordinated and the like. So, for the first time the services are achieving interoperability under workable memorandums of agreement.

MARITIME STRATEGY–COMBINED OPERATIONS
KEY ALLIED NAVIES/MARITIME PATROL AIRCRAFT



About our allies. Everything we do in the maritime strategy not only pulls our sister services in with us in support of maritime operations, and we in support of their land operations, but we also must have our allies with us. We cannot do it alone anymore. So all of the little red dots you see there are base access with host nation support with allied maritime patrol air working with us, in concert with us, interoperability is stressed. Secure communications is stressed. Exchange of intelligence is stressed. This has worked continuously worldwide. Fifty-four exercises last year with these nations helped keep us up in this area and ensure the interoperability of those forces.

THE MARITIME STRATEGY
OBJECTIVE: MAKING A STRATEGIC DIFFERENCE

- PROTECTING/MAINTAINING THE SEA LINES OF COMMUNICATIONS
- TAKING PRESSURE OFF THE CENTER IN EUROPE
- DEFENDING/ATTACKING ON THE FLANKS WORLDWIDE

Then, finally, the overall grasp, then, of our maritime strategy shows these pinchers on the northern—southern flanks of NATO, in northeast Asia, where we are going to be protecting and maintaining the sea lines of communication in addition to supporting the central Europe campaign. We are going to be taking the pressure off that center in Europe and we are going to be defending and attacking where necessary on the flanks worldwide to ensure that the Soviets cannot carry out their strategy of limiting the operation perhaps to central Europe and trying to be defensive only on their flanks and not incurring our wrath. We are saying, no, we have a global strategy; you can't play that game on your ground rules. We are going to make it difficult for you to carry out your strategy. That is the overarching prelude, then, to talking about the phases.

PHASE I
MARITIME STRATEGY

"DETERRENCE OR TRANSITION TO WAR"

GOALS

- DETER THE WAR
- CEDE NO VITAL AREA BY DEFAULT
- PREPARE FOR GLOBAL WAR

TASKS

- POSITION FORWARD
- BEGIN STRATEGIC SEALIFT
- AVOID MALDEPLOYMENT
- INCREASE READINESS
- HUSBAND RESOURCES
- MAXIMIZE WARNING TIME

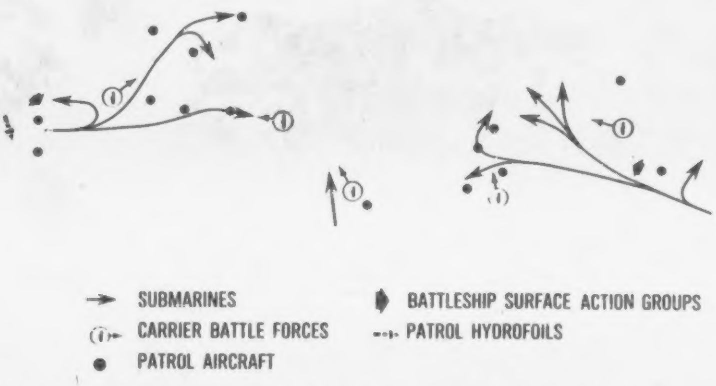
SPEED AND DECISIVENESS ESSENTIAL

NEED: ACTIVATION OF RESERVES
ALLIANCE SOLIDARITY

EXERT MAXIMUM
POLITICAL-MILITARY
LEVERAGE

The first phase is deterrence, or transition to war, and we can see on the left the goal, to win the crisis, to control the escalation, to cede no vital area by default, and to prepare for global war. And then the tasks on the right there: to position forward, to begin the sealift because if we don't begin that sealift, as I will show you in a minute, it could become very critical to our malpositioning of forces worldwide [that is Army, Air Force, Navy and Marine], to increase the readiness of the forces; to husband the resources we are going to need; and to maximize our warning time. But the most critical things are speed and decisiveness in our political action that might be necessary as we face the brink of war. We must ensure that we move out aggressively, not in a provocative way, but in a deterrent way. As a matter of fact, we just engaged in the first unified commander, Joint Chief of Staff, Secretary of Defense, National Security Council, State Department, and Members from the Congress, massive wargame at the Naval War College where we work on this particular phase of the strategy, deterrence. How can we optimize deterrence? How can we work with Capitol Hill during critical periods? Where we can work closer together to build the kinds of national strategies we need to ensure that we have taken deterrence to the very limit of our ability and capability in the United States? These are the issues addressed.

PHASE I:
DETERRENCE OR TRANSITION TO WAR
MOVEMENT OPTIONS OF USN FORCES


SUBMARINES
BATTLESHIP SURFACE ACTION GROUPS
CARRIER BATTLE FORCES
PATROL HYDROFOILS
PATROL AIRCRAFT

So deterrence, then, is moving into position so that forces can be optimized in the event that escalation control fails and we must face combat. Then we move the forces. The submarines are shown by the solid white lines there and the arrows where they might be moving. The carrier battle forces are moved foward, as shown by the circle. The patrol aircraft squadrons are augmented by reserves and moved into position to better give us the information flow we need for early warning.

Battleship surface action groups are moved into position, as shown by the short, stubby arrows there off the southern coast of the United States, into the South China Sea or where needed. Patrol hydrofoil will be operating there off Florida, a very important adjunct to our forces in the nearby coastal regions.

PHASE I:
DETERRENCE OR TRANSITION TO WAR
STRATEGIC SEALIFT OPTIONS

FORWARD SURGES, REINFORCEMENT, RESUPPLY

- STRATEGIC SEALIFT ASSETS

MILITARY SEALIFT COMMAND FLEET
NATIONAL DEFENSE RESERVE FLEET
READY RESERVE FLEET

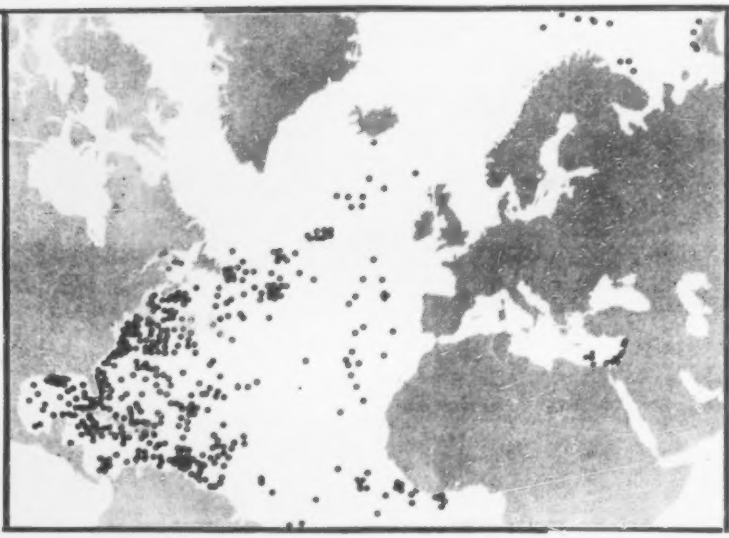
U.S. FLAG MERCHANT FLEET
EFFECTIVE U.S. CONTROL FLEET
ALLIED MERCHANT FLEETS

- SIMULTANEOUS AIRLIFT

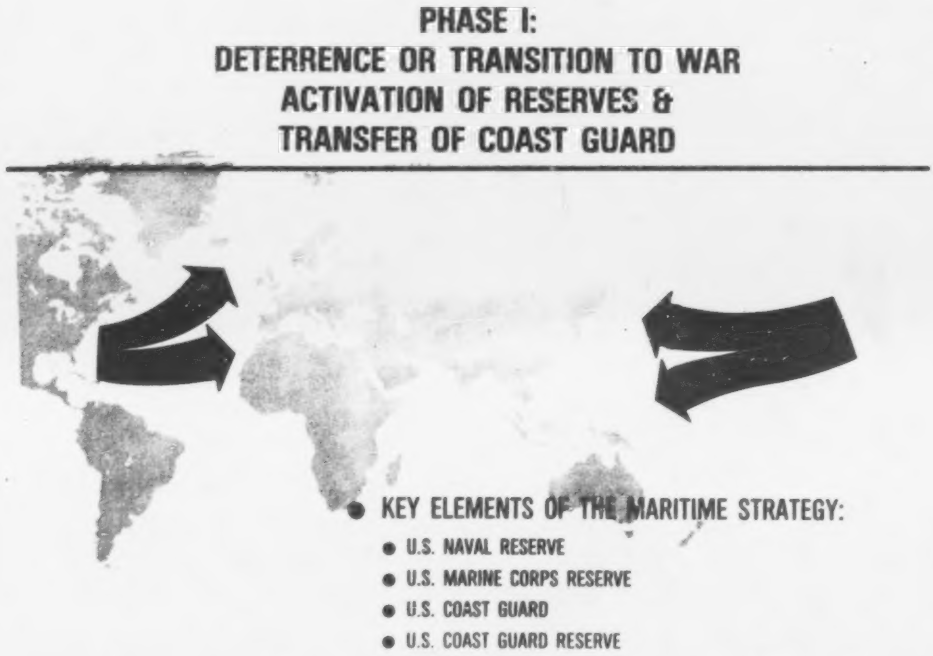
The next—we will be moving our strategic sealift, as I mentioned earlier, forward for reinforcement and supply. We find in our wargames that it is very important to move forces early because, as you know, we are constrained as a nation in sealift capability. We will have built by the end of this decade a strategic sealift force which is adequate for the military purposes, the movement of military forces. It is not adequate for attrition, as we had in World War II, and it is not adequate for all strategic raw materials thereafter, but it will do the minimum that we have to do to move the forces, to move the Army and the Air Force for resupply of central Europe and that area.

It becomes very important, then, that we move as much as we can early and keep these minimum resources fully available if called upon when deterrence fails.

MERCHANT SHIPS SUNK BY U-BOATS
JANUARY - JULY 1942



Now, the next slide gives you the graphic presentation that we have shown this committee before, but I think it is a very important slide of what happens when you don't take decisive action early and when you don't provide the kind of combat forces necessary to protect your shipping. In the first 6 months here of World War II, shown on this slide between January and July of 1942, you are seeing 1.5 million tons of U.S. and allied ships lost. There are 450 dots around that slide. That damage was carried out by only 14 of the 50 then-operating German U-boats on patrol in the western Atlantic. That gives you an idea how important it is for us to have the naval forces necessary to protect the sealift. We do not have the 5,000 ships we had in World War II. We simply have a very small number of maritime sealift forces. Even combined with allied contributions, there are still inadequate numbers for all the tasks we would like to accomplish, particularly with attrition considered.



PHASE I:
DETERRENCE OR TRANSITION TO WAR ACTIVATION OF RESERVES & TRANSFER OF COAST GUARD

- KEY ELEMENTS OF THE MARITIME STRATEGY:
  - U.S. NAVAL RESERVE
  - U.S. MARINE CORPS RESERVE
  - U.S. COAST GUARD
  - U.S. COAST GUARD RESERVE

The next slide talks about the importance of early callup of Reserves. This is phase I. Still the threat of war is there. But since we are trying to deter, it is very important to have the 100,000 callup authority. As we transfer more functions into the Reserve, which we are now doing, it is important that we watch this number very carefully. In fact, the Joint Chiefs of Staff feel so strongly now that they are making proposals to the Secretary of Defense for changes. He is supporting a planning initiative to, perhaps, come over to the Congress and ask for an augmentation of that 100,000 callup authority, to increase it to some higher number, because we can't have it both ways. If we want to save the dollars—and I think it is very important we do that, by maximizing the Reserve—we simply have to be ready to call up those reserves early and give us the preposition option for our forces in this very critical preconflict stage. We must ensure that we don't have an Achilles' heel, such as cargo unloading, since all of the Navy cargo unloading capability is in the Reserves. Also, all of the Navy combat SAR is in the Reserve. Since we are going to be putting more things into the reserves, we are going to need support from Congress to give us more callup authority for this particular phase in crisis control. You can also see the importance of the Coast Guard there. We expect them to transition, and to transition before conflicts, so that we can have them under our command and control, even though they may be carrying out some of the same policing functions for domestic purposes they are doing today.

PHASE II
MARITIME STRATEGY

"SEIZE THE INITIATIVE"

GOALS

- COUNTER FIRST SALVO
- ATTRITE ENEMY FORCES
- PROTECT SLOCS
- CONTINUE REINFORCEMENT AND RESUPPLY
- IMPROVE POSITIONING

TASKS

- CONDUCT
  - ASW
  - AAW
  - ASUW
  - MIW
  - C^3ICM
  - SPECOPS
  - STRIKEOPS
  - PHIBOPS
- CONTINUE SEALIFT

AGGRESSIVE MARITIME OPERATIONS CONTRIBUTE DIRECTLY TO:
- LAND CAMPAIGNS
- ALLIANCE COHESION

ESTABLISH FORWARD MARITIME SUPERIORITY

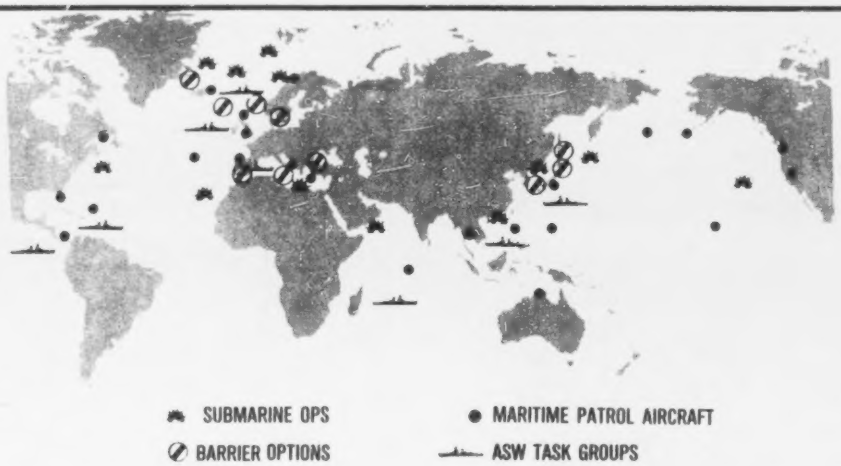
Now, phase II. We enter that portion which says that we have lost the deterrent battle. We have had the opening salvo and now we must transition to conflict. Our goals there are to counter that first salvo because there will likely be Soviet action in central Europe. They will attempt to remain defensive elsewhere, as I pointed out earlier. We can't allow that. We have to divert their attention and make sure they understand that nothing is going to be given away here.

After we have countered that first salvo, we will attrite the enemy forces, protect the sealines of communication, continue reinforcement of resupply and improve positioning. Now, all of this strategy converts to a set of tasks. Those are the classic tasks which we come over and talk to your committees about every year: antisubmarine warfare, antisurface warfare, counter command and control, strike operations, antiair warfare, mine warfare, special operations and amphibious operations. And, of course, we have to continue the sealift.

As you know, last year the Secretary established for the first time, a third primary mission of the Navy, which is sealift. This is a very important change in our policy, because establishing it as a mission means it gets front-burner attention in our budget process, which it is now getting. So sealift is now a very important new mission. Not that we didn't have it implicitly before, but we had not established it officially.

PHASE II:

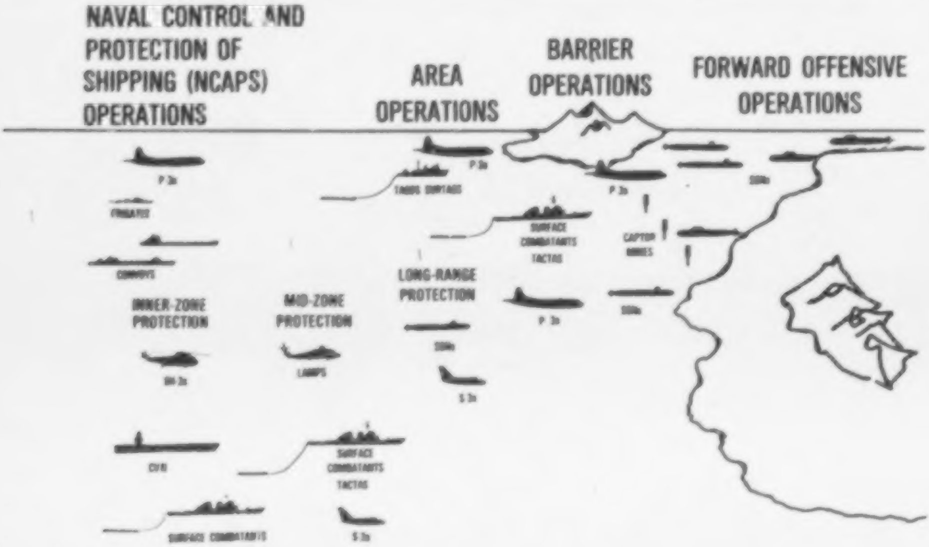
SEIZE THE INITIATIVE: ANTI-SUBMARINE WARFARE (ASW) OPTIONS



I am going to talk about some of these options as quickly as I can. Antisubmarine warfare . . . as I mentioned, one of the most complex of all. In phase II, as we are seizing the initiative, we are moving those submarines into areas shown by the yellow splashes all over the world. They will be moved early, because we don't violate airspace and don't violate sovereign territory. We are just moving our submarine forces early to make sure they are in the proper position and that they are not maldeployed at critical times.

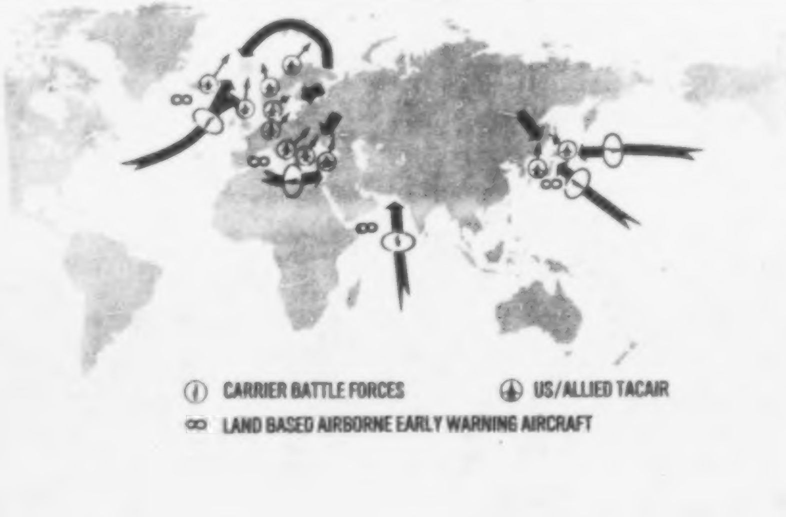
You can see the circle with the green slash. Those are our barrier options that are available to us at key choke points of the world. Barriers are made up maritime patrol aircraft; or they could be mines; or they could be sonobuoy fields, or they could be made up of SSN's; or they could be a combination of these things. We are going to be very concerned that we set up those barriers early on because they are going to help us prevent unwanted leakage of Soviet forces. We want to control and want to keep those enemy forces contained for our forward-deployed forces to work on. Maritime air and ASW task force will be there, with offensive and defensive mining taking place simultaneously.

OFFENSIVE ANTI-SUBMARINE WARFARE (ASW)


NAVAL CONTROL AND PROTECTION OF SHIPPING (NCAPS) OPERATIONS
AREA OPERATIONS
BARRIER OPERATIONS
FORWARD OFFENSIVE OPERATIONS
P-3s
FRIGATES
CONVOYS
INNER-ZONE PROTECTION
SH-3s
CV/II
SURFACE COMBATANTS
MID-ZONE PROTECTION
LAMPS
SURFACE COMBATANTS TACTAS
S-3s
TAGOS SURTASS
LONG-RANGE PROTECTION
SSNs
CAPTOR MINES

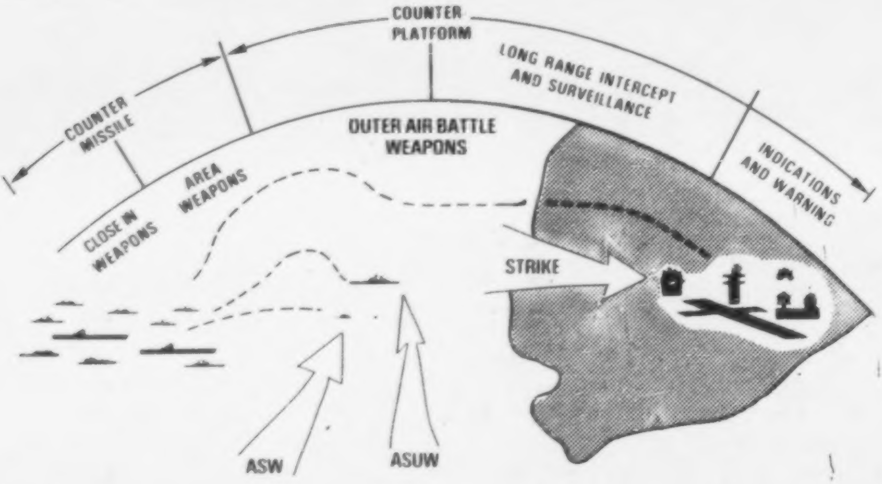
Anti-submarine warfare is very complicated. You can see there how you approach the enemy shores from area operations at sea made up of carriers, carrier air, land-based air, surface ship-towed arrays, and surface ship LAMPS helicopters, SSN's in the direct support role give us the mobility we need to track the complex set of factors that go into submarine detection, classification and kill and barrier operations. There you also see our submarines foward deployed. So, that is the range of ASW action.

PHASE II:
SEIZE THE INITIATIVE
ANTI-AIR WARFARE (AAW) OPTIONS


CARRIER BATTLE FORCES
US/ALLIED TACAIR
LAND BASED AIRBORNE EARLY WARNING AIRCRAFT

Now, in antiair warfare, we get ready by moving our carriers out into positions where they can bring maximum deterrent leverage to bear. They are combined with other forces, including the Air Force and our allies, to bring the added strength we need to bear on to make any move that our country feels is important on the northern, the southern flanks of NATO, and in Northeast Asia.

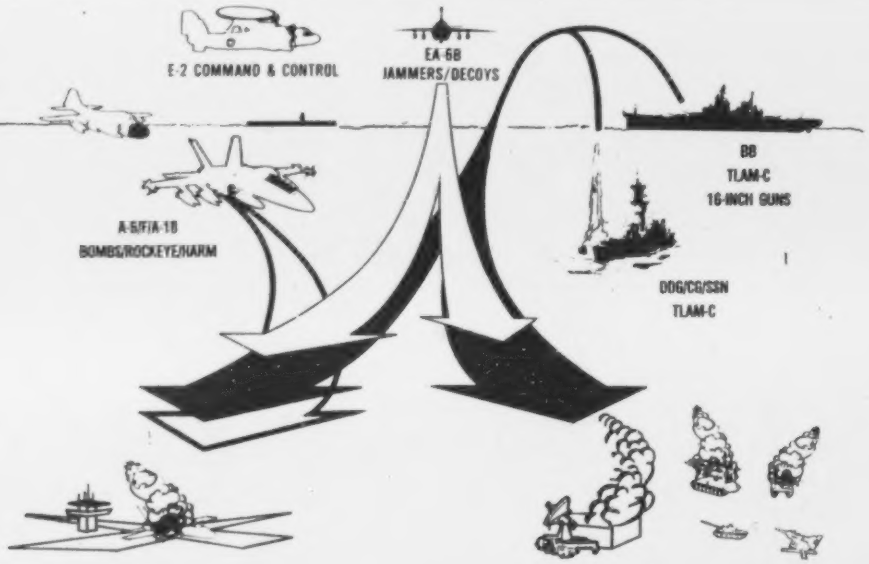
OFFENSIVE ANTI-AIR WARFARE (AAW)


COUNTER PLATFORM
LONG RANGE INTERCEPT AND SURVEILLANCE
COUNTER MISSILE
OUTER AIR BATTLE WEAPONS
INDICATIONS AND WARNING
AREA WEAPONS
CLOSE IN WEAPONS
STRIKE
ASW
ASUW

In that context, the Antiair Warfare Program is also one of the most complex. It involves the offensive and defensive concept; offense in depth, defense in depth; long-reach indication and warning, way over to the right of the slide, over enemy shores; long-range interception surveillance, back towards our forces. The idea is to counter the launch platform. To shoot the archer before he releases the arrows is very important because that cuts down on the magnitude of the defensive problem. But leakage will surely occur. Then we are ready with our area weapons to deal with inbound missiles or, in some cases, aircraft.

Certainly, in the close-in weapon area, we have now developed, asked you to fund, and you have funded, a variety of close-in weapon systems that do everything possible to keep our ships viable throughout the entire spectrum of antiair warfare shown here.

OFFENSIVE STRIKE WARFARE

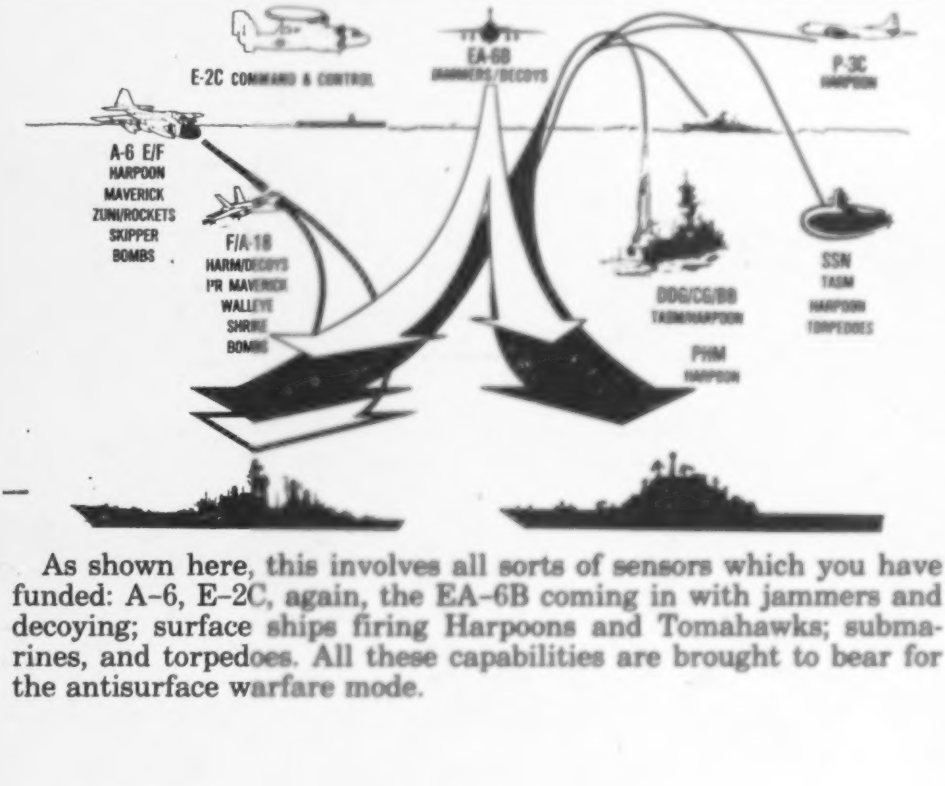

E-2 COMMAND & CONTROL
EA-6B
JAMMERS/DECOYS
BB
TLAM-C
16-INCH GUNS
A-6/F/A-18
BOMBS/ROCKEYE/HARM
DDG/CG/SSN
TLAM-C

In offensive strike warfare, similarly, we have a very fine strike air capability at sea. The A-6 combination with E-2C, along with all of the jammers and the decoys needed to destroy the enemy targeting capability can augment the strike capability of the Tomahawk launched from submarines and surface ships including the battleships. All of these platforms contribute to spectacular aircraft warfare options. Those options are brought to bear in a region to use as the unified commanders direct.

PHASE II:
SEIZE THE INITIATIVE
ANTI-SURFACE WARFARE (ASUW) OPTIONS

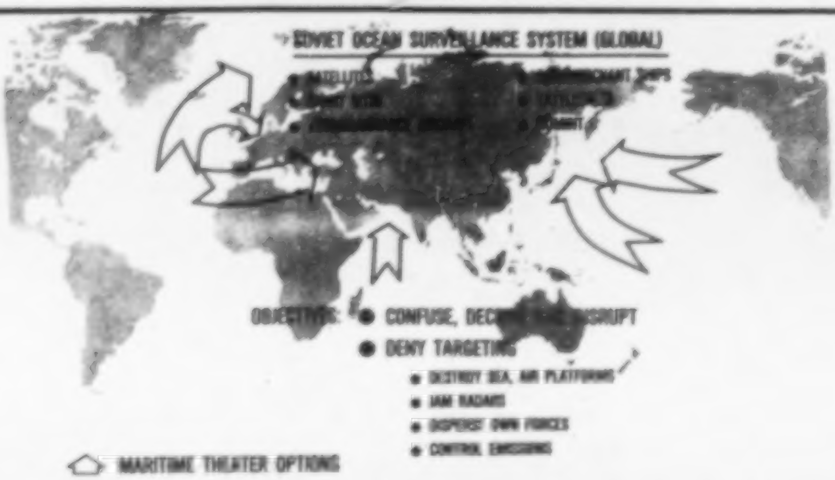
Antisurface warfare means that we must eliminate enemy surface ships wherever they are at the outset of conflict, and we must do it very quickly. This gets into rules of engagement and how we would deal with the potential enemy from the brink of war to initial conflict. You can see there that we have aggressive plans; we have rules of engagement set and we are ready to make the transition. These rules ensure that the Soviets are aware of our intent so that they can't just wander carelessly into an adventuristic role here at the outset of conflict and think that they can salvage themselves under the transitional circumstances. We are ready to take them out.

OFFENSIVE ANTI-SURFACE WARFARE (ASUW)


E-2C COMMAND & CONTROL
EA-6B
JAMMERS/DECOYS
P-3C
HARPOON
A-6 E/F
HARPOON
MAVERICK
ZUNI/ROCKETS
SKIPPER
BOMBS
F/A-18
HARM/DECOYS
I²R MAVERICK
WALLEYE
SHRIKE
BOMBS
DDG/CG/BB
TASM/HARPOON
PHM
HARPOON
SSN
TASM
HARPOON
TORPEDOES

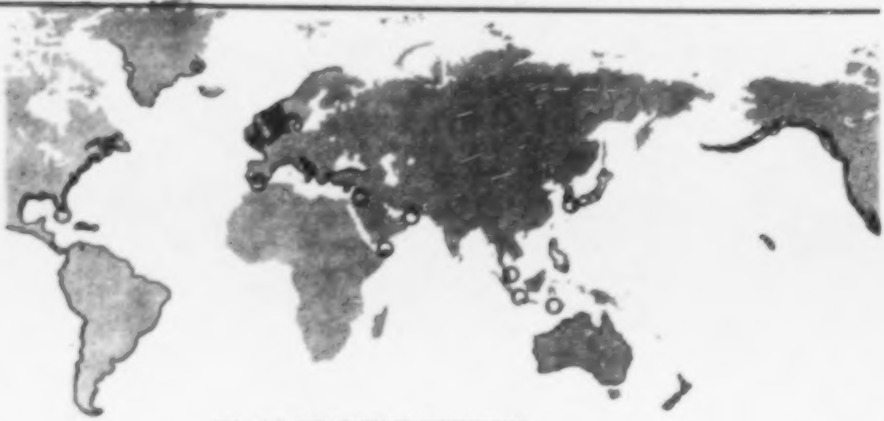
As shown here, this involves all sorts of sensors which you have funded: A-6, E-2C, again, the EA-6B coming in with jammers and decoying; surface ships firing Harpoons and Tomahawks; submarines, and torpedoes. All these capabilities are brought to bear for the antisurface warfare mode.

PHASE II
SEIZE THE INITIATIVE
COMMAND, CONTROL, COMMUNICATIONS, AND INTELLIGENCE COUNTERMEASURES (C^3ICM) OPTIONS


SOVIET OCEAN SURVEILLANCE SYSTEM (GLOBAL)
SATELLITES
MERCHANT SHIPS
OBJECTIVES:
CONFUSE, DEC[illegible] DISRUPT
DENY TARGETING
DESTROY SEA, AIR PLATFORMS
JAM RADARS
DISPERSE OWN FORCES
CONTROL EMISSIONS
MARITIME THEATER OPTIONS

Next, command control and communications, a very vital part of our business. As I previously mentioned, Lenin said that it was deception that was the name of the game. We know that, and therefore, we have to have a counterdeception capability of the first order. We think we know how to do this and you have funded a variety of programs that have given us new insights on how we can optimize this very important part of our warfare task. In fact, you will see resources migrating into this area because, with our high technology, we think we can bring lots of leverage to bear in this very important and sensitive part of our warfare business.

PHASE II:
SEIZE THE INITIATIVE:
MINE COUNTERMEASURES (MCM) OPTIONS



■ U.S. AND ALLIED RESPONSIBILITIES

○ CHOKE POINTS

Mine countermeasures is the next slide. We are ready at the choke points of the world to be able to clear the mines as necessary to keep our sealines open and keep our forces clear. We know how to do that and we know how to work mining operations with our allies. We have a very aggressive program executed by the Commander of the Mine Warfare Command. He travels to some 40 nations every year to ensure that we are well coordinated with their a mine-clearing and offensive mine-laying operations. That has been one of the highlights, I think, of the emerging maritime strategy over the past 5 years.

PHASE III
MARITIME STRATEGY

"CARRY THE FIGHT TO THE ENEMY"

GOALS

- PRESS HOME THE INITIATIVE
- DESTROY SOVIET FORCES
- RETAIN/REGAIN TERRITORY
- KEEP SLOCS OPEN
- SUPPORT LAND/AIR CAMPAIGNS

TASKS

- ACCELERATE
  - STRIKE OPERATIONS
  - AMPHIBIOUS WARFARE
- CONTINUE
  - AAW
  - ASUW
  - SPECWAR OPS
  - SEALIFT
  - ASW
  - MIW

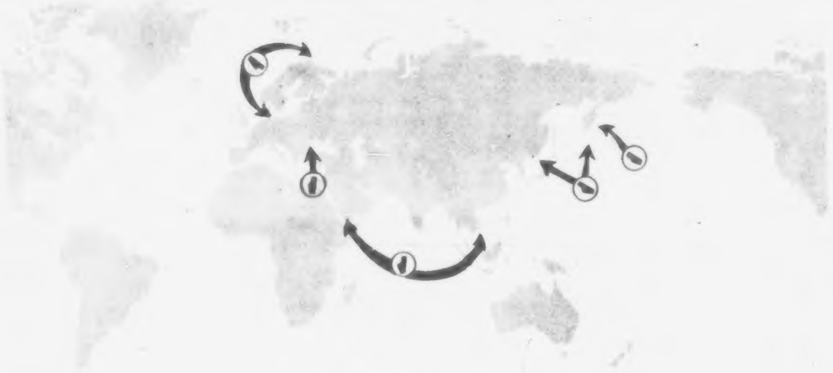
WAR TERMINATION ON FAVORABLE TERMS

Next, we enter into the final stage of the maritime strategy: carrying the fight to the enemy, pressing home initiative, destroying the forces; retaining and regaining territory, keeping the SLOC's open; supporting the land and air campaigns. As I say, we are working with the other services to ensure that we have the right operational standards so that we can apply those forces together in complex combat environments with good command and control and greatest effectiveness, while continuing the sealift.

The tasks are then similar to the tasks mentioned before, but now more aggressively applied. The idea is to achieve war termination on terms favorable to the United States.

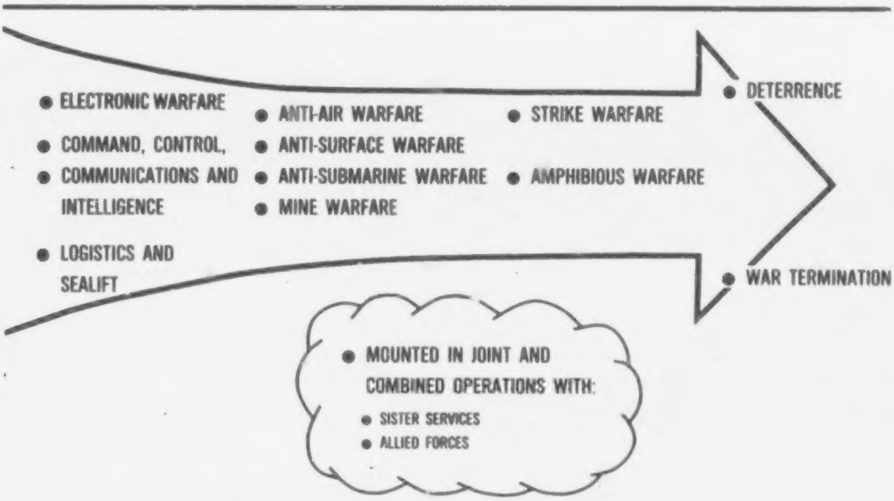
PHASE III:

CARRY THE FIGHT TO THE ENEMY: CARRIER BATTLE FORCE STRIKE WARFARE OPTIONS



That is when we get into the very tough carrier battle force strike operations close to the heart of the Soviet motherland. Some of these operations could have come earlier, some of them could be accelerated. We are always prepared to take advantage of opportunities at the right time, when it appears that the attrition ratio can be put in our favor. So, again, no time line. We are not saying that this must follow something else. We are merely saying that there could be a sequence of events taking place very quickly. This could come to bear within the first 24 hours of combat for that matter, in some areas of the world.

MARITIME STRATEGY INTEGRATES ALL NAVAL WARFARE MISSIONS



- ELECTRONIC WARFARE
- COMMAND, CONTROL,
- COMMUNICATIONS AND INTELLIGENCE
- LOGISTICS AND SEALIFT
- ANTI-AIR WARFARE
- ANTI-SURFACE WARFARE
- ANTI-SUBMARINE WARFARE
- MINE WARFARE
- STRIKE WARFARE
- AMPHIBIOUS WARFARE
- DETERRENCE
- WAR TERMINATION
- MOUNTED IN JOINT AND COMBINED OPERATIONS WITH:
  - SISTER SERVICES
  - ALLIED FORCES

The next slide, then, will lead to amphibious warfare operations, which I would like to pass to the Commandant. What you have seen here is a brief summary of an integration of all of the naval warfare missions. It is complex. Time doesn't allow us to go into great detail in each of these. But I think I have given you a feel for the complexity and diversity of the problem, and the way we divide up our strategy in such a way that we can convert it to the budget requests we bring on Capitol Hill to support specific warfare task for the Navy.

STATEMENT OF GEN. P.X. KELLEY, COMMANDANT OF THE MARINE CORPS

General Kelley. Thank you, Admiral Watkins.

Mr. Chairman, Admiral Watkins, of course, has given you the highlights of our naval strategy. Let me, for the next few moments, discuss how amphibious warfare is a key element of our overall maritime strategy.

Before doing that, I think it is always of interest to determine the views of the potential adversaries. The following is a quote from "Seapower and the State," a book by the admiral of the fleet of the Soviet Union and the commander in chief of the Soviet Navy, Sergei Gorshkov, where he talks about amphibious operations or power projection from the sea, and I quote:

> A fleet with its strikes from the sea is capable of changing the course and outcome of an armed struggle even in continental theaters of military operations. The fleets are the things of special importance in modern conditions in connection with the growth of their strike power. The mobility of the fleet and its flexibility—where conflicts come to a head—enable it to exert an influence on coastal countries, employ and extend a military threat at any level starting from a show of military force and ending with the mountings of landings.

THE MARITIME STRATEGY
NOTIONAL AMPHIBIOUS FORCE COMPOSITION

MAF-MARINE AMPHIBIOUS FORCE (DIVISION/AIR WING)
MAB-MARINE AMPHIBIOUS BRIGADE (REGIMENT/AIR GROUP)
MAU-MARINE AMPHIBIOUS UNIT (BATTALION/SQUADRON)

COMBAT FORCES

	TROOPS	TANKS	FIXED WING AIRCRAFT	HELICOPTERS	ARTILLERY
MAF	52,300	70	157	156	120
MAB	15,700	17	79	100	36
MAU	2,000	5	6	22	8

ASSAULT ECHELON AMPHIBIOUS LIFT

LHA
LHD
LPH
LPD
LSD
LST
LKA
LCC
LCM
LCAC
LCU
AAV

First, let me review the composition of our Marine Air-Ground Task Forces since this is the way we fight; but in doing that, let me remind you that the marines are embarked aboard naval ships as a part of an amphibious task force which is a far larger and more complex organization.

Mr. BENNETT. Some people have said that your voice is a little loud, so if you could push that microphone about 4 inches further away, that would be good. You have gotten our attention.

General KELLEY. Marines are used to parade ground voices, I guess.

Mr. BENNETT. You are wonderful; it is terrific. [Laughter.]

General KELLEY. My apologies, Mr. Chairman.

We are part of an overall amphibious task force consisting of the necessary surface ships to isolate the Amphibious Objective Area. The necessary carrier-based and land-based aircraft are provided to ensure essential air defense. Mine countermeasure ships, ensure mine clearing, and naval gunfire support ships provide fire support for the amphibious task force. Any student of military history or military science will tell you that the amphibious operation is probably the most complex of all military endeavors.

With that said, we organize within the Marine Corps, along what we call our Marine Air Ground Task Forces. These are the units of varying size that must be transported aboard the amphibious ships to an Amphibious Objective Area.

Starting with our largest, our Marine Amphibious Force of some 52,000 sailors and marines consists of essentially a Marine division with its companion aircraft wing consisting of both fixed- and rotary-wing aircraft, and a force support group.

Next is our Marine Amphibious Brigade, roughly 16,000 sailors and marines, built around a regiment with its Marine Aircraft Group companion organization composed again fixed- and rotary-wing aircraft, and a brigade service support group.

The Marine Amphibious Unit, which we continue to have deployed on a daily basis, is roughly 2,000 sailors and marines and consists primarily of a battalion landing team, a combat service support component, and a composite squadron of helicopters, but can be augmented with the AV–8 aircraft to give us a VSTOL capability. These are, simply stated, integrated air ground teams that consist of a ground component, an air component, a combat service support component, and also the essential command and control to provide the internal organization within the Marine Air Ground Task Force.

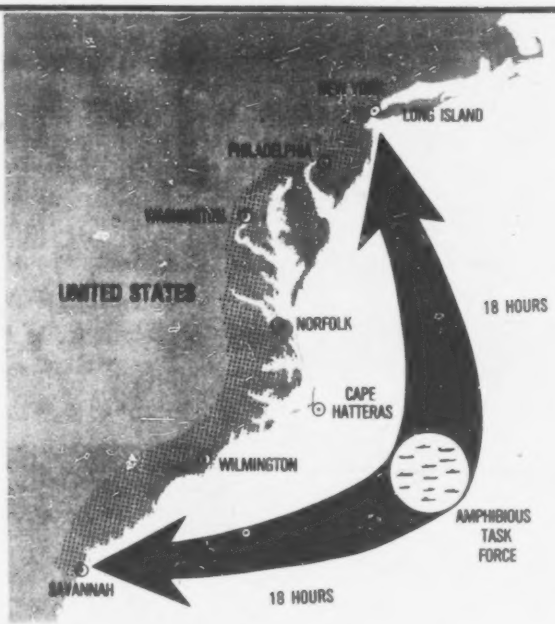
This is how we fight. This is how we go to war and this is how we train on a day-to-day basis and how we deploy, even in peacetime.

THE AMPHIBIOUS WARFARE STRATEGY: GOALS

- CONTROL CRISES
- DETER WAR
- IF DETERRENCE FAILS:
  - DESTROY ENEMY MARITIME FORCES
  - PROTECT U.S./ALLIED SEA LANES
  - SUPPORT U.S./ALLIED LAND BATTLES
  - SECURE FAVORABLE WAR TERMINATION

Next we have the basic goals of our maritime strategy. As you can see, we seek to capitalize on our flexibility by putting a fully capable Marine Air Ground Task Force at either end of the continuum of conflict, starting with controlling a crisis, all the way up to general global war with a potential adversary.

OVER THE HORIZON AMPHIBIOUS ASSAULT

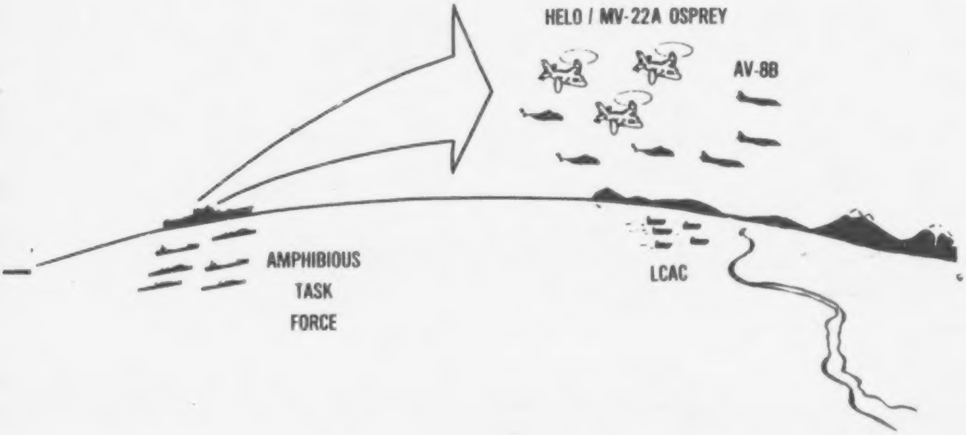

NEW YORK
LONG ISLAND
PHILADELPHIA
WASHINGTON
UNITED STATES
NORFOLK
18 HOURS
CAPE HATTERAS
WILMINGTON
AMPHIBIOUS TASK FORCE
SAVANNAH
18 HOURS

Our strategy exploits advantages inherent in amphibious forces by positioning these forces forward. Just to give you some example of the enormous flexibility in tactical surprise, this graphically shows you that at this moment, Mr. Chairman, if you had an amphibious task force that was sitting off the coast in the vicinity of Cape Hatteras, within 18 hours, that amphibious task force could be in a position anywhere—by dawn tomorrow—anywhere along the coast between New York City and Savannah, GA, to conduct an amphibious operation. You can see then the tremendous flexibility and element of surprise of which one is capable.

This will be enhanced significantly as we proceed through the decade and field our landing craft, air cushion [LCAC] and our MV-22A Osprey tilt-rotor aircraft. We also have completed the introduction of our CH-53E helicopter into our Fleet Marine Forces.

AMPHIBIOUS WARFARE

OVER-THE-HORIZON ASSAULT



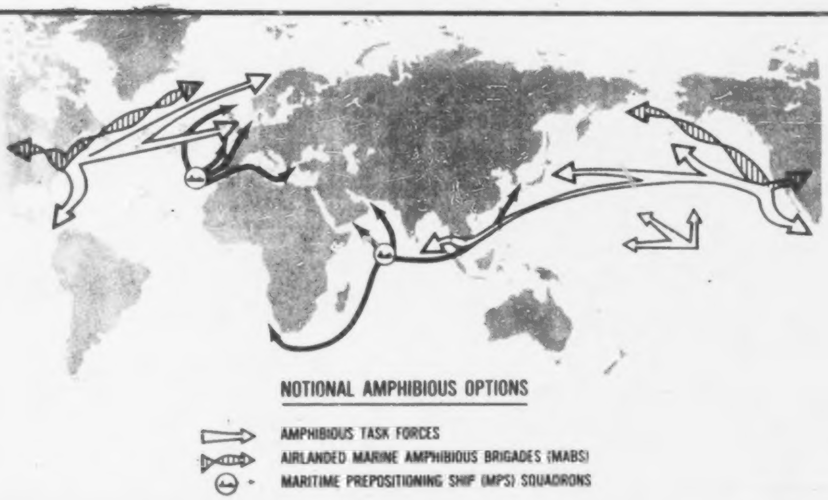
This gives you a little more specificity. It shows LCAC's approaching a beach. They can be launched from over the horizon. They can move, as you recall, the World War II speed of displacement craft was around 8 knots. These LCAC's will move at speeds in excess of 40 knots carrying 60 tons of supplies and equipment, from 35 nautical miles off the coast, giving them an over-the-horizon capability.

The MV-22A Osprey tilt-rotor aircraft which will be introduced starting in the early part of the next decade, will carry 24 fully equipped marines from 150 nautical miles off the coastline to landing zones 50 miles inland, giving us tremendous flexibility. Not only that, this aircraft would have an in-flight refueling capability, giving it, literally, an intercontinental capability for self-deployment.

As you can see, we also will have the AV8-Bs which we will be able to launch from our amphibious ships and will be the principal means of providing our essential close air support during the initial phases of the assault.

So this gives you some idea of the dynamics as all of these, Mr. Chairman, will be launched from the new and very capable LSD-41 class and LHD-1 class ships that are currently under construction.

THE AMPHIBIOUS WARFARE STRATEGY:
PHASE I
DETERRENCE/TRANSITION

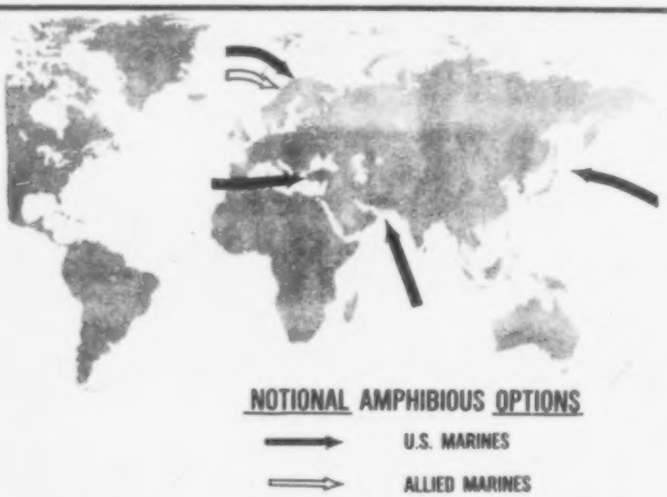

NOTIONAL AMPHIBIOUS OPTIONS
AMPHIBIOUS TASK FORCES
AIRLANDED MARINE AMPHIBIOUS BRIGADES (MABS)
MARITIME PREPOSITIONING SHIP (MPS) SQUADRONS

Just to tie this into Admiral Watkins' phases of our maritime strategy, during the deterrence or transition phase, our amphibious task forces will normally forward deploy. They will move forward so as to be first a deterrent and then, if deterrence fails, to be in the optimum position in the event of war.

We have several options where we could move a brigade to each ocean or, if the situation so dictated, we could consolidate and have a Marine Amphibious Force, that large 52,000 sailor and marine force, in one ocean. So we have tremendous flexibility.

We would move our three MPS squadrons to forward-deployed positions so as to have them in a position to be off loaded in the most likely areas of employment. Also, we would move our air-landed Marine Amphibious Brigade, the one for which we currently have pre-positioned equipment, to positions in Norway.

THE AMPHIBIOUS WARFARE STRATEGY:
PHASE II:
SEIZE THE INITIATIVE


NOTIONAL AMPHIBIOUS OPTIONS
U.S. MARINES
ALLIED MARINES

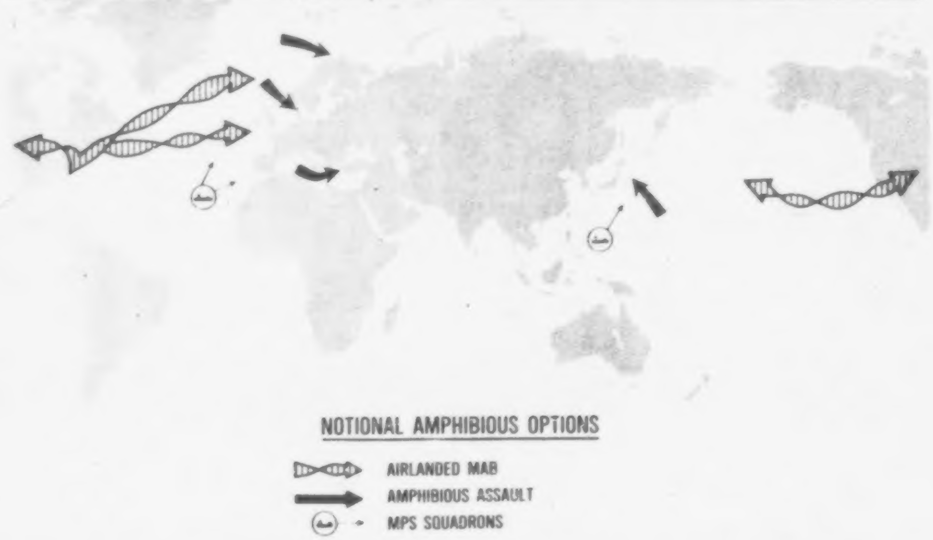
Phase II is when we seize the initiative. We have the flexibility of conducting anything from a Marine Amphibious Brigade-sized raid all the way up to and including a marine amphibious forcible entry. This could be conducted alone or in conjunction with allied Marine forces.

The principal requirement here would be to seize a beachhead for the introduction of followup forces, either from other services or from other countries.

THE AMPHIBIOUS WARFARE STRATEGY:

PHASE III

CARRY THE FIGHT TO THE ENEMY:

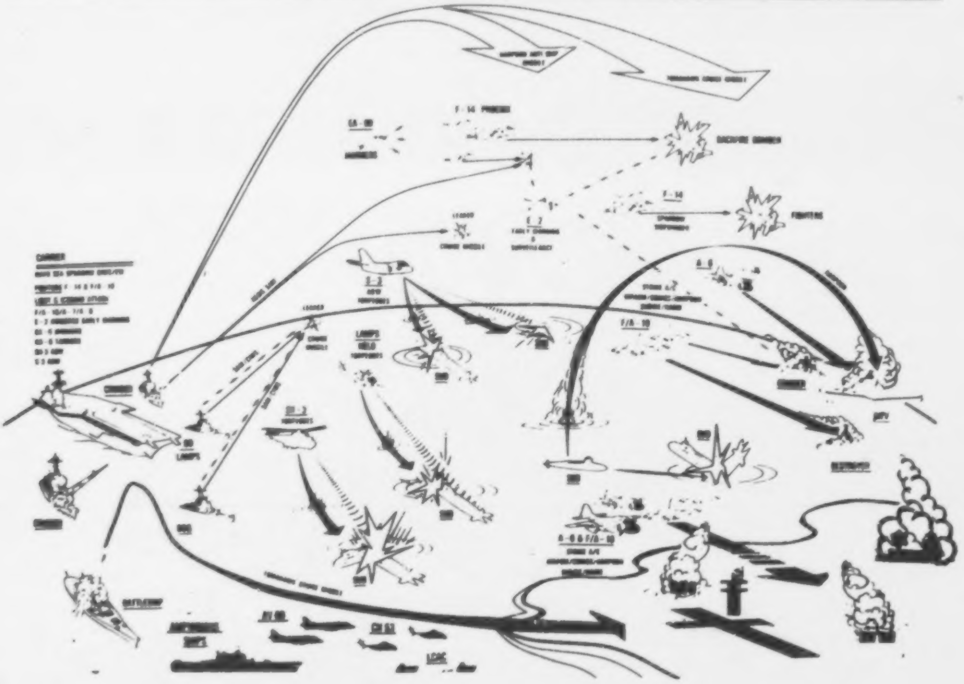

NOTIONAL AMPHIBIOUS OPTIONS
AIRLANDED MAB
AMPHIBIOUS ASSAULT
MPS SQUADRONS

During phase III, we carry the fight to the enemy. We will conduct major marine amphibious brigade sized amphibious operations to seek to regain terrain, to ensure that the SLOC's are kept open, and any other missions that are required to maintain our maritime superiority.

This, Mr. Chairman, has been just a brief overview of the essential elements of our amphibious warfare strategy as a part of an overall maritime strategy. I think the one thing to remember is, that in my recollection of 35 years of active service, we have never seen a more closely integrated and thoroughly coordinated Navy-Marine Corps team.

Thank you, Mr. Chairman.

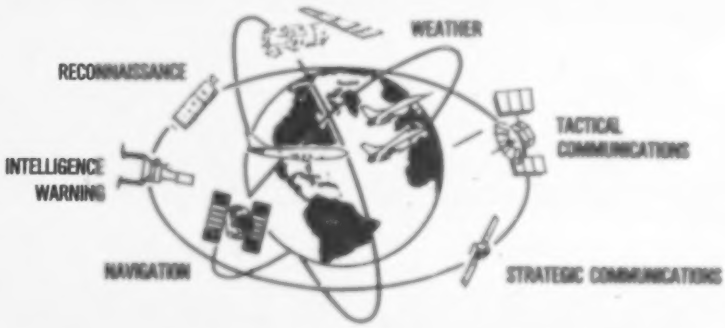
THE MARITIME STRATEGY: NAVAL WARFARE



Admiral Watkins. Mr. Chairman, the next slide is a summary, then, of what naval warfare is about in the modern age. It is a very complex slide, but it does show that all of these forces are synergistically combined to provide a tremendous capability to deter, and to win if deterrence fails. That includes the amphibious operations General Kelley just talked about; the most complex air strikes; the most complex antisubmarine warfare operations; and the like.

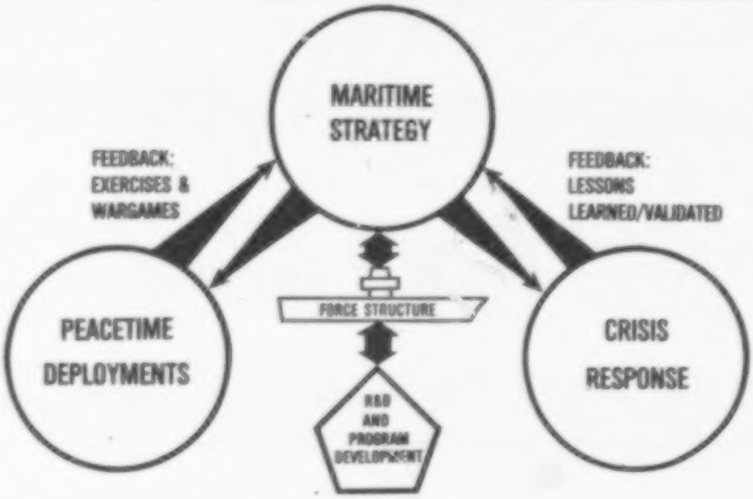
THE MARITIME STRATEGY: SPACE

U.S. NAVY—LARGEST SINGLE SERVICE USER OF SPACE SYSTEMS


WEATHER
RECONNAISSANCE
TACTICAL COMMUNICATIONS
INTELLIGENCE WARNING
NAVIGATION
STRATEGIC COMMUNICATIONS

Space systems provide some of the glue needed to bind this strategy together. There has been much discussion about Navy and space. The Navy is in space in a big way. We are the No. 1 users of tactical information from space today. We know how to recover it on the ground; we know how to fuse it in real time by 24-hour-a-day analysts at our fleet information centers, and then how to transmit it out to fleet unit. We can include on those intelligence circuits such things as international terrorist threats and the like. In effect space-related systems provide the mechanism by which we can pull these forces together and ensure they are optimally deployed. Space, then, is becoming very c[illegible]cal in our future warfare analysis. It is also factored into all of our war gaming and exercises.

SUMMARY
THE MARITIME STRATEGY: A DYNAMIC CONCEPT

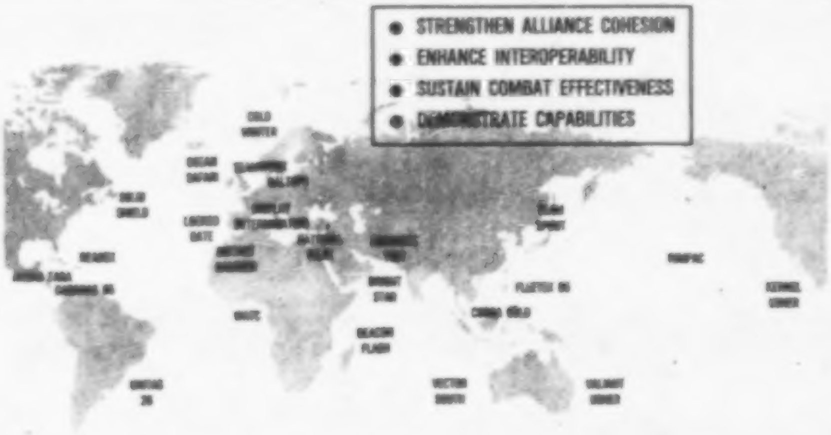

MARITIME STRATEGY
FEEDBACK: EXERCISES & WARGAMES
FEEDBACK: LESSONS LEARNED/VALIDATED
PEACETIME DEPLOYMENTS
FORCE STRUCTURE
CRISIS RESPONSE
R&D AND PROGRAM DEVELOPMENT

In summary here is the maritime strategy again, displayed in a way that shows the linkage between our peacetime deployments, the crisis response, the budget preparation and force structure.

How we test the strategy, then, becomes very important. We test it in exercises and in war games and in real-life scenarios which I would like to just briefly summarize.

Here are the major exercises, shown on this slide.

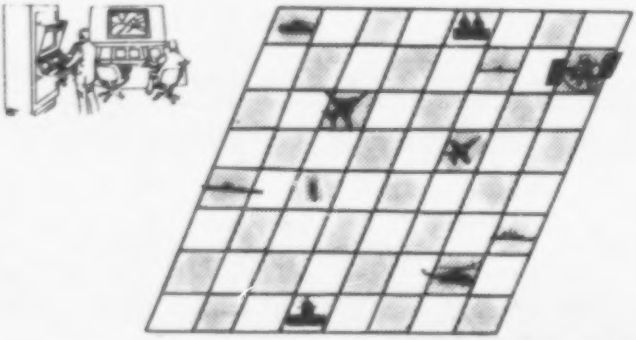
MAJOR U.S. NAVAL EXERCISES


- STRENGTHEN ALLIANCE COHESION
- ENHANCE INTEROPERABILITY
- SUSTAIN COMBAT EFFECTIVENESS
- DEMONSTRATE CAPABILITIES

COLD WINTER
OCEAN SAFARI
BALTOPS
SOLID SHIELD
LOCKED GATE
DISPLAY DETERMINATION
BRIGHT STAR
BEACON FLASH
FLEETEX 86

The Navy and the Marine Corps conducted 106 major exercises last year in conjunction with other U.S. national forces, as well as allied forces. Of those 106, 55 were worked with allies. Now, this sends a very strong message to the prospective aggressor, that it may be just too hard to work against these kinds of combined-strength forces showing a high level of proficiency. Exercises demonstrate to the Soviets our proficiency. They trail us with the AGI's, their various platforms, their satellites and overhead observations. That is good for deterrence, because they can see that we are ready. They can see that we are proficient and they can see that we are still better than they are. That is a very strong deterrent signal.

TESTING THE MARITIME STRATEGY:
WAR GAMING



- NAVAL WAR COLLEGE
  - GLOBAL WAR GAMES
  - PROGRAM (POM) WAR GAMES
  - OTHER GAMES
- JOINT/ALLIED GAMING

These exercises are very important. War gaming—we put a great deal of emphasis on this technique. Congress approved $18 million for a new war gaming center at Newport to bring us into the modern world of computers. It is the finest in the Nation today. We are coupling up with the Air War College and the Army War College so that now all games can be fought as combined arms, allied and sister services games. We play with Army and Air Force leadership as well and, as I had mentioned, we recently had the very important first global war game with all unified commanders in to help us. This is a very important concept because it helps us test our strategy. As a matter of fact, you may not know this, but in the fiscal year 1985 budget, the fiscal year 1986 budget and in the preparation of the fiscal year 1987 budget, we war-gamed many of the options before we put them into our budget. We did so to test the trade-off between such things as deception devices, decoys, passive systems and active systems.

These are some of the things that we can test ahead of time. We feel more comfortable as we build our strategy by using war-gaming analyses to check theories that we will test in the exercise. Furthermore, the next slide shows that we watch very carefully what is going on in the real world.

VALIDATING THE MARITIME STRATEGY:
REAL WORLD LESSONS LEARNED

LEBANON
GRENADA
RED SEA MINE CLEARANCE
FALKLANDS

As you know, this committee has been interested in Falkland Islands lessons learned, the Bekaa Valley lessons learned, what we learned in the Red Sea mining clearance, the operation at Grenada, how to improve our command and control and the related sister service linkage. All of these become very important, and you see the budget from the Secretary of the Navy coming over here reallocating resources to cover these areas. Some of those lessons learned picked up a new sense of urgency for change, such as those learned in the Bekaa Valley.

TESTING THE MARITIME STRATEGY: ADVANCED TACTICAL TRAINING

TACTICAL
TRAINING GROUP
(TACTRAGRU)
"TOP GUN" TACTRAGRU
* ADVERSARY SQUADRONS
MARINE CORPS TRAINING
* AIR GROUND COMBAT CENTER
* MOUNTAIN WARFARE TRAINING CENTER
* AVIATION-WEAPONS + TACTICS SQUADRON

As a matter of fact, as a result of the Bekaa Valley we learned that we had to establish a more modernized and a more aggressive strike university for strike air operations, to take advantage of all the modern technology used and lessons learned there, we need to learn to use the kinds of decoys, and other techniques that have been so effective with the Israelis. The Secretary and I launched the Navy Strike University just this past year, a very important initiative. It will eventually link up with the Air Force not far away from Fallon, at Nellis Air Force Base. We will start this summer with the first operations, working with 36 aircraft in three dimensions so that we can have a real time down-link to monitoring stations, and we can have post-strike debriefs, which are very important to measure our performance.

There again, you see the Navy and Marine Corps working with sister services and applying lessons learned.

MAKING A STRATEGIC DIFFERENCE

CONTRIBUTIONS OF MARITIME FORCES

- ENHANCE DETERRENCE
- CONTROL ESCALATION
- SOLIDIFY WESTERN ALLIANCE
- INFLUENCE NEUTRALS
- DEFEND THE U.S.
- SUPPORT LAND CAMPAIGNS
- LIMIT SOVIET OPTIONS
- INCREASE SOVIET UNCERTAINTIES

THROUGHOUT, THE MARITIME STRATEGY

- HELPS GAIN THE INITIATIVE
- PROVIDES STRONG DETERRENCE/TERMINATION LEVERAGE

Finally, then, the Navy does make a strategic difference. When I say the Navy, I mean the Navy, the Marine Corps, the sister services supporting maritime operations and our allies. The strategy enhances deterrence; it controls the escalation; it defends the United States; it limits the Soviet options and all of the items pointed out in the slide here.

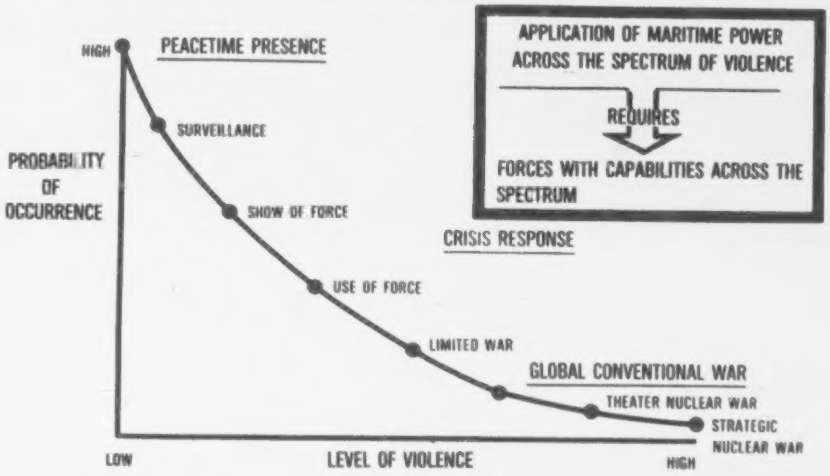
Admiral **Watkins**. I will now turn it over to the Secretary.

STATEMENT OF HON. JOHN F. LEHMAN, JR.—Continued

FORCE STRUCTURE

Secretary **Lehman**. Mr. Chairman, now I would like to talk about the force structure itself, the 600-ship Navy.

THE MARITIME STRATEGY:



The application of maritime power across the spectrum of deterrence of potential violence requires a particular force structure to carry out the strategy that you have just been briefed on.

THE NATIONAL MILITARY STRATEGY
REQUIRES
THE MARITIME STRATEGY
REQUIRES

THE 600-SHIP NAVY

- 15 CARRIER BATTLE GROUPS
- 4 BATTLESHIP SURFACE ACTION GROUPS
- 100 ATTACK SUBMARINES
- BALLISTIC MISSILE SUBMARINES
- MAF-PLUS-MAB ASSAULT ECHELON LIFT
- 100-110 FRIGATES
- 31 MINE COUNTERMEASURES SHIPS
- SUPPORT SHIPS TO MATCH

This maritime strategy has produced for us logically, a force structure objective of 600 ships and, as you can see, this is the same list that I showed you 4½ years ago.

We have not changed our force structure objectives at all. The 15 carrier battle groups, the 4 battleship surface action groups, 100 attack subs, the ballistic missile submarines, the lift assets for one complete Marine Amphibious Force plus an independently deployable Marine Amphibious Brigade assault echelon, 100 to 110 frigates, 31 mine countermeasures ships and the full array of support ships to match them.

THE NATIONAL MILITARY STRATEGY
REQUIRES
THE MARITIME STRATEGY
REQUIRES

STRATEGIC SEALIFT

- 13 MARITIME PREPOSITIONING SHIPS
- 12 PREPO SHIPS (FORMERLY NTPF)
- 77-SHIP READY RESERVE FORCE GROWING TO 116 SHIPS
  - 100 DRY CARGO SHIPS
    INCLUDES 11 TACS CRANE SHIPS
  - 16 TANKERS
- 2 TAVB MARINE AVIATION SUPPORT SHIPS
- 2 TAH HOSPITAL SHIPS
- 8 TAKR FAST SEALIFT SHIPS (SL-7)

This is a new area of emphasis that this subcommittee has been one of the leaders in bringing to the attention and concern of the Nation. Today, four and a half years after the initiation of our sealift modernization, we have put more money into strategic sealift than in all previous budgets combined, going all the way back to World War II.

Unfortunately, the bad news part of this is that most of those ships—what we call black-hulled ships—would have been in the merchant marine in prior eras. We are having to spend so much Navy money on sealift ships today because of the dangerous, precipitous decline of the U.S. maritime industry. I applaud the initiative that you have taken in the establishment of a commission to put together a coherent strategy recommendation to deal with that objective.

But these ships, represent a very innovative and effective way to deal with the most urgent shortages today and you are familiar with those programs.

THE NATIONAL MILITARY STRATEGY
REQUIRES
THE MARITIME STRATEGY
REQUIRES

NAVAL AVIATION

- 14 ACTIVE CARRIER AIR WINGS
- 2 RESERVE CARRIER AIR WINGS
- 24 ACTIVE MARITIME PATROL SQUADRONS
- 13 RESERVE MARITIME PATROL SQUADRONS
- HELICOPTERS
- SUPPORT AIRCRAFT
- TRAINERS
- ADVERSARY AIRCRAFT

We have in our program 14 active carrier airwings. In a major shift of emphasis, we have now laid the responsibility for providing two carrier airwings in wartime upon the Reserves and are dropping those active duty units from the force structure. The 24 active and 13 reserve maritime patrol P-3 squadrons, the helicopters, support aircraft, trainers and adversary aircraft, you are well aware of.

About a third of our naval aviation is provided by the Marine Corps.

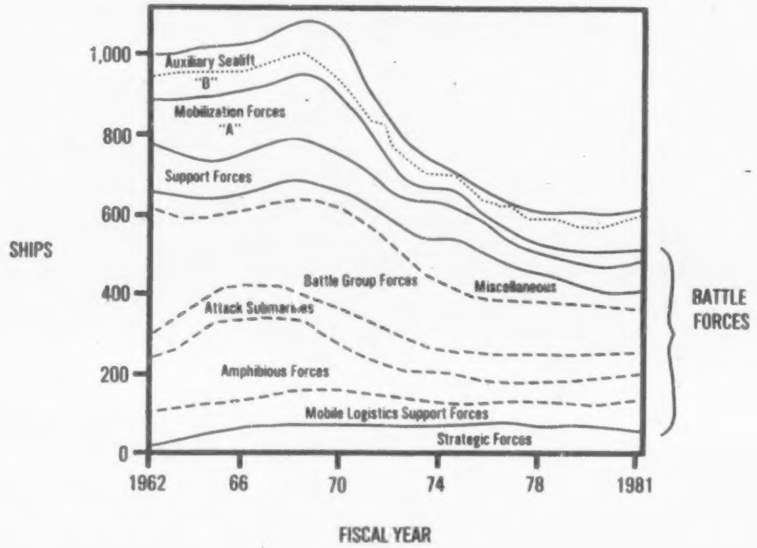
THE NATIONAL MILITARY STRATEGY
REQUIRES
THE MARITIME STRATEGY
REQUIRES

MARINE AIR-GROUND TASK FORCES

- COMBAT–READY MARINES
  - BETTER QUALITY, BETTER TRAINED
- 3 MARITIME PREPOSITIONING SHIP SETS
  - BY END FY 88
- NORWAY PREPOSITIONING BY FY 89
- INCREASED INFANTRY FIREPOWER
  - M-16A2, SMAW, SAW, MK-19, M-60 E3, M-252
- IMPROVED ARTILLERY RANGE & LETHALITY
  - M-198, ICM, BCS
- IMPROVED ANTI-ARMOR RANGE, LETHALITY, & ACCURACY
  - DRAGON, TOW II
- GROUND MOBILITY ENHANCED
  - LAV, LVTP7A1, AVLB
- AVIATION COMBAT POWER
  - AV-8B, F/A-18, CH-53E, AH-1T+, LASER MAVERICK, HELLFIRE, GATOR
- AIR DEFENSE AND C^2
  - TRIAD I-HAWK, STINGER, TAOM, TPS-59
- INCREASED COMBAT SERVICE SUPPORT
  - 15 MORE CSS UNITS, WRM UP 25 DAYS, BRIDGING, LOGISTIC VEHICLES SYSTEM, CONTAINERIZATION

Next, the Marine air-ground task forces: You have been briefed by the Commandant on their employment. Never in history have we had a period of such dramatic modernization of the air-ground task forces, a modernization of tactical thinking, and of the training and the equipment that goes to make up that powerful force.

PRE-1981
U.S. NAVY SHIP FORCE LEVELS

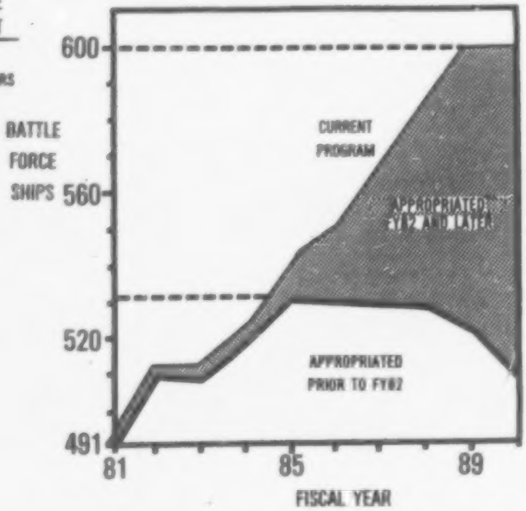


This gives you a schematic of where we have come from. It shows the dramatic unilateral disarmament that we went through in the 1970's, dropping from 960 ships in 1967 to a low of 479 ships in 1980. We will continue back up and will achieve a 600-ship force by the year 1989.

PROJECTED U.S. NAVY SHIP FORCE LEVELS

FORCE STRUCTURE SHIPS & AIRCRAFT
(FY82-FY85)

- 2 AIRCRAFT CARRIERS
- 3 BATTLESHIPS
- 12 AEGIS CRUISERS
- 3 TRIDENT SUBS
- 11 ATTACK SUBS
- 8 FRIGATES
- 33 SUPPORT SHIPS
- 507 F-14, F/A-18, LAMPS III



MODERNIZATION WEAPONS & SENSORS

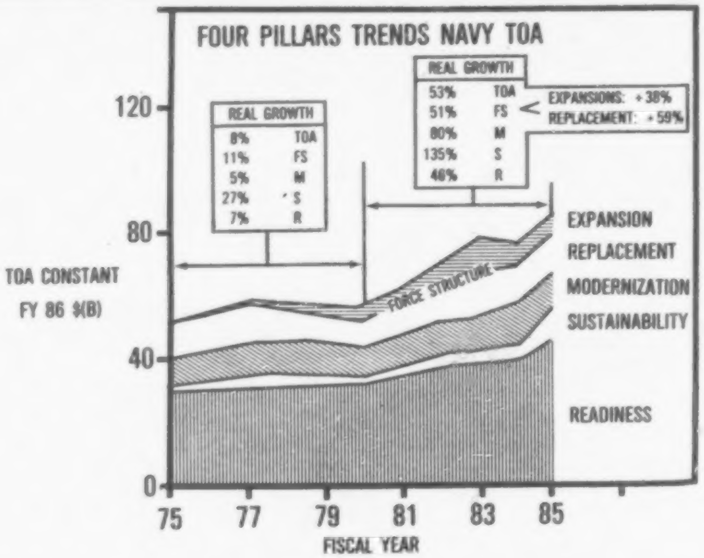
- AEGIS COMBAT SYSTEM
- IMPROVED PHOENIX MISSILE
- HARM MISSILE
- TOMAHAWK CRUISE MISSILE
- AIR CUSHION LANDING CRAF
- TOWED ACOUSTIC ARRAY
- TRIDENT (D-5) MISSILE
- MISSILE DECOYS

This indicates where the modernization of the force structure growth comes from. Most of the 60 ships that we have added in the last 4 years have come from appropriations prior to 1982. We were able to maintain the growth by canceling plans to retire the DDG-2 and DDG-37 class destroyers early. We also reactivated the battleships and we canceled the plans to retire the carriers *Midway* and *Coral Sea*, which were in the plan that we inherited. So, we got a rapid force buildup and now the ships appropriated since 1982 are beginning to deliver in large numbers, an average 20 a year, which will allow us to achieve the 600 number by 1989.

TOTAL OBLIGATIONAL AUTHORITY

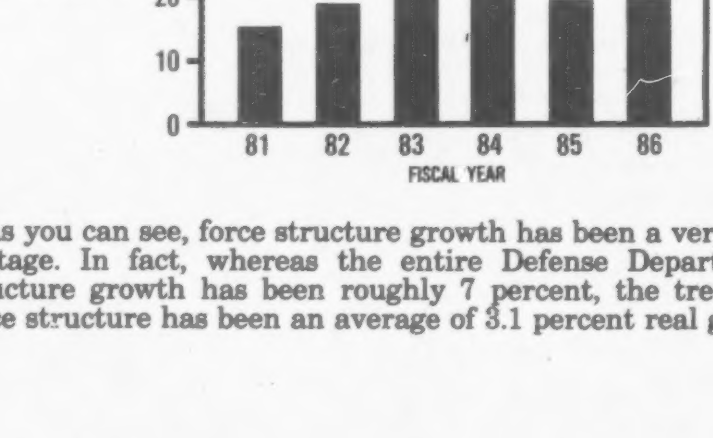
There is a lot of erroneous information that floats around in various think pieces and op ed pages. We have actually had an average 7 percent real growth in the Navy over the last 4 years, contrary to the criticism of some. Whereas, during the previous 4 years, the growth in readiness was only 7 percent total over the whole 4 years. In the last 4 years, growth in readiness, real growth, has been 46 percent.

THE 600 SHIP NAVY
TOTAL OBLIGATIONAL AUTHORITY (TOA)



In sustainability, during the prior 4 years there had been a total of only 27 percent real growth; in the last 4 years, 135 percent real growth. So, the major emphasis has been put on improving the stocks of parts and ammunition and readiness and training of personnel, rather than the force structure.

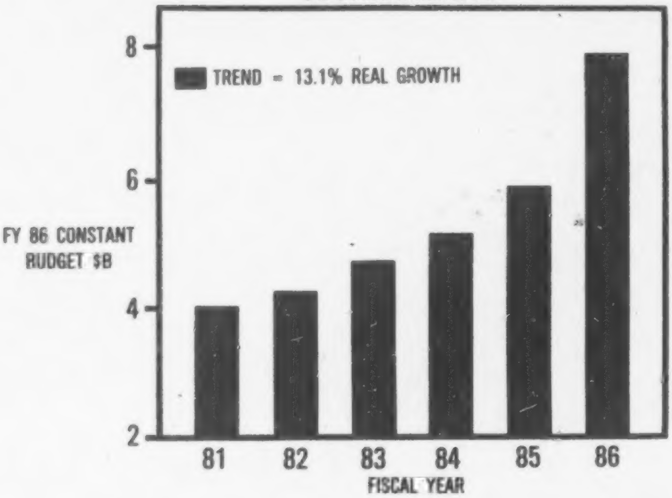
THE 600-SHIP NAVY



As you can see, force structure growth has been a very small percentage. In fact, whereas the entire Defense Department force structure growth has been roughly 7 percent, the trend in Navy force structure has been an average of 3.1 percent real growth, well below the overall defense growth, and as you can see, we have leveled off after the major increases in TOA ballooned by the two-carrier buy, which, by the way, has ended up being an even greater success than we had anticipated in cost savings produced.

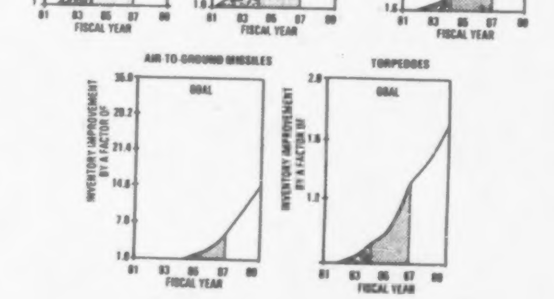
THE 600-SHIP NAVY

SUSTAINABILITY



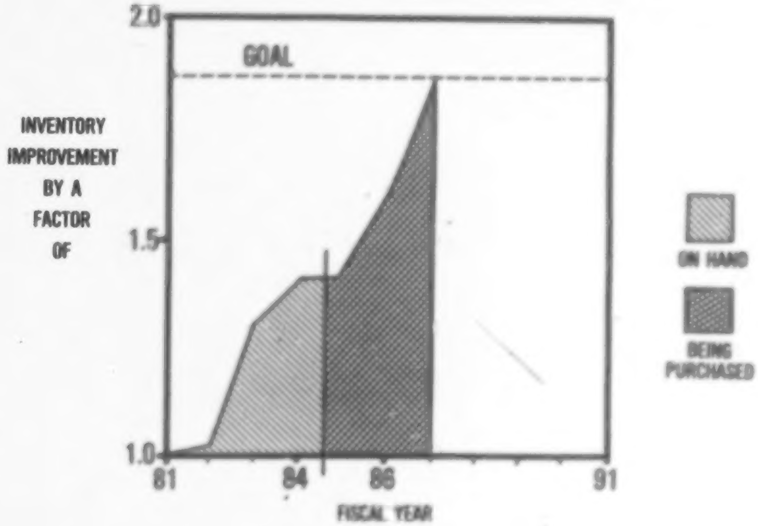
This shows where we are putting our money. Contrary to the glib critics, the major increases have gone to sustainability.

THE 600 SHIP NAVY: MORE WEAPONS AT SEA



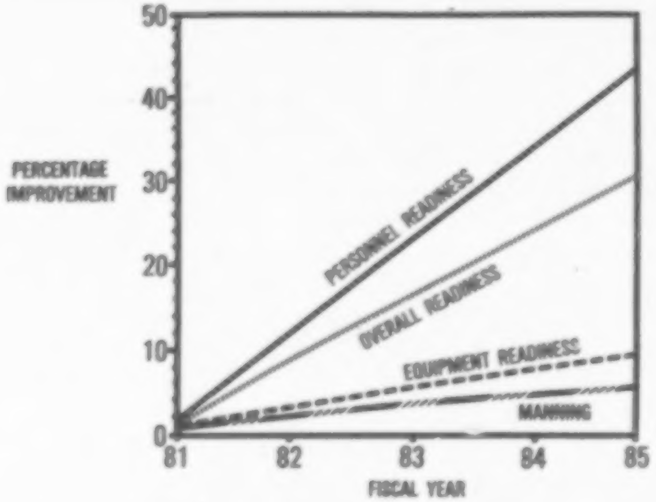
The next slide shows the actual, in-bin missiles and ammunition and weapons systems in the fleet today. As you can see, there has been a dramatic increase—some 60 percent more weapons are now in the fleet, than 4½ years ago, when we could not load out the fleet even once. We now are well on the way to the wartime objectives.

THE 600-SHIP NAVY:
MORE SPARE PARTS AT SEA



Obviously, as you can see from this, we have not stinted on spare parts and as you travel around the fleet today, Mr. Chairman, you can see the dramatic change. I just came off active duty last week; 4 years ago, the wing that I flew with, would have had 3 to 5 aircraft out of 10 available for flight on any given day. They are averaging 8 to 9 out of 10 this year. That is where the rubber meets the road and that is the tremendous change that this proper allocation of money to readiness has brought about these last 4 years. Results speak for themselves. Look at those numbers.

THE 600-SHIP NAVY: FLEET MANNING AND READINESS UP



There has been a greater than 40-percent increase in personnel readiness; a 30-percent increase in overall material readiness. Personnel readiness; equipment readiness; manning readiness; everything is up, up, up. Those are the results that speak for themselves in showing the wisdom of the investment allocations in the 600-ship Navy.

MANNING THE 600 SHIP NAVY

NAVY ENLISTED RECRUITING

	FY-80	FY-81	FY-82	FY-83	FY-84	FY-85
GOAL	99,298	106,238	94,793	84,798	82,907	87,532
ATTAINMENT	99,351	106,322	94,793	84,798	82,907	
PERCENT ATTAINED	100.1%	100.1%	100%	100%	100%	

NAVY ENLISTED RETENTION

	FY-81		FY-82		FY-83		FY-84		FY-85	
	GOAL	ACTUAL	GOAL	ACTUAL	GOAL	ACTUAL	GOAL	ACTUAL	GOAL	ACTUAL (THRU APRIL)
FIRST TERM	44%	42%	47%	50%	49%	56%	50%	58%	58%	57%
SECOND TERM	52%	57%	67%	63%	63%	65%	65%	64%	66%	65%
THIRD AND BEYOND	94%	94%	98%	95%	98%	97%	95%	95%	95%	93%

You are familiar with our records in recruiting and retention. Recently I have testified, raising warning signals that all the recent actions in cutting four billion dollars out of retirement and the deferral of pay raises are having their impact. We are definitely seeing danger signals. Half of our recruiting districts last quarter did not make their quota and that is cause for concern.

We are still meeting our overall quota, and we have not seen any dip in quality; but we have seen the waiting lines shrink dramatically. It is something to watch, Mr. Chairman.

Last, I will discuss affordability.

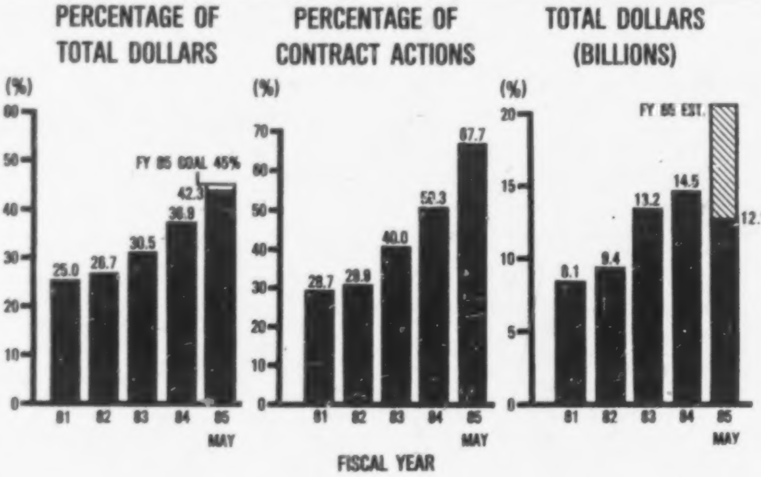
Can we afford to maintain this 600-ship Navy that you have given us? It is under construction; it will be here. Can the Nation afford to do it? In my judgment, without any question, with the real growth that is foreseeable, we can afford to maintain the 600-ship Navy and we can do it by continuing the initiatives to tremendously improve on the way we used to do business in the period of the 1970's, where budget restrictions forced so many inefficiencies and diseconomies.

AFFORDABILITY

- MORE COMPETITION
- FAIR GOVERNMENT-INDUSTRY COST SPLITS
- COMMON SUBSYSTEMS
- "THE BEST IS THE ENEMY OF THE GOOD ENOUGH"
- "STOP CHASING R&D RAINBOWS"
- PUT OUR OWN HOUSE IN ORDER
- DE-ORGANIZE AND DECENTRALIZE THE BUREAUCRACY
- BETTER USE OF OUR PEOPLE
- HIGH-TECHNOLOGY
- REDUCE FLEET OPTEMPO

Let me run through our initiatives quickly. Major increases in competition; fair government/industry cost splits; common subsystems; "the best is the enemy of the good enough"; "stop chasing R&D rainbows"; put our own house in order in the management of contracting and competition; deorganize and decentralize our own bureaucracy and hopefully urge the same medicine on the rest of the Government; better use of our people; better use of high tech; and reducing fleet OPTEMPO.

AFFORDABILITY THROUGH COMPETITION: DEPARTMENT OF THE NAVY PROCUREMENT COMPETITION PERFORMANCE



Let's go to the first: Competition: We are putting our money where our mouth is, Mr. Chairman. These show you that. As a percentage of total dollars, we have risen from 25 to 45 percent awarded competitively and by competition, I mean real competition, not source selections to give monopolies, but multiple sourcing and real competition on a fixed-price basis.

We are all the way up to 67.7 percent of contract actions, up from only 28 percent 4 years ago. In the last column, you'll see total dollars in billions awarded competitively.

AFFORDABILITY THROUGH CONTRACT DISCIPLINE

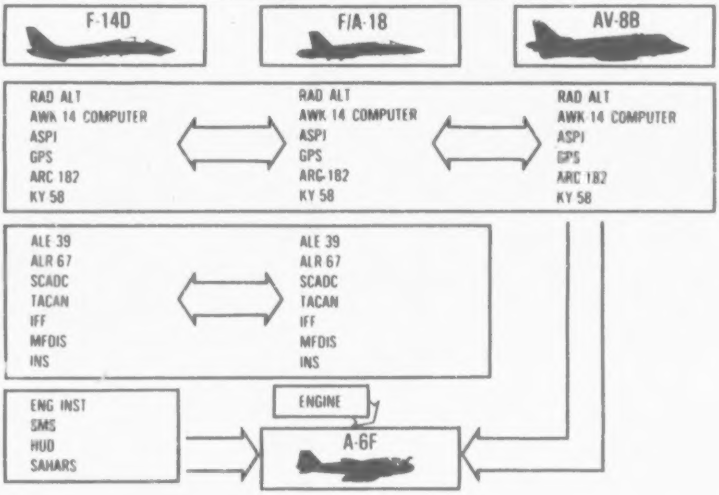
- ALL AIRCRAFT PROCUREMENT ON FIXED PRICE CONTRACTS
- ALL SHIP PROCUREMENT ON FIXED PRICE INCENTIVE CONTRACTS
  (WITH 50/50 SHARE LINE ABOVE AND BELOW CONTRACT PRICE)
- PREVIOUS CONTRACTS RENEGOTIATED BY NAVY DEPARTMENT
- ELIMINATE GOVERNMENT FUNDING OF CONTRACTOR START-UP COSTS

Contract discipline. We have moved all aircraft procurement to fixed-price contracts. All ship procurement is now on fixed-price, 50/50 share lines. We have gone back and renegotiated some of the softer contracts from previous years. We are taking major initiatives to deal with the contractor start-up costs policy of this Government.

Today, our big contractors average over four times as much profit as a percentage of assets on their defense contracts as on their commercial contracts. Why is that? What is it in the defense business that would warrant four times the percentage of profit? There is nothing. We are one of the most reliable, prompt-paying customers the world has ever seen. So why do we award that kind of benefit? There is no reason. Yet today, congressional policy and executive branch policy take for granted that we will pay for the tooling in the plants of our suppliers. That shouldn't be and we are dealing with that in the Navy.

An example is the dual sourcing of the GE404 aircraft engine. Our second source wanted the business. We said, "You put up the dough to facilitize yourself and buy the tooling," and after gulping, they have now done that. That should be standard practice. We did the same thing for second-sourcing of cruisers and we intend to make that standard Navy policy.

AFFORDABILITY THROUGH COMMON SUBSYSTEMS


F-14D
F/A-18
AV-8B
RAD ALT
AWK 14 COMPUTER
ASPI
GPS
ARC 182
KY 58
RAD ALT
AWK 14 COMPUTER
ASPI
GPS
ARC-182
KY 58
RAD ALT
AWK 14 COMPUTER
ASPI
GPS
ARC 182
KY 58
ALE 39
ALR 67
SCADC
TACAN
IFF
MFDIS
INS
ALE 39
ALR 67
SCADC
TACAN
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MFDIS
INS
ENG INST
SMS
HUD
SAHARS
ENGINE
A-6F

Affordability through common subsystems. We are really accomplishing major benefits through this. We have forced commonality now into our four top tactical aircraft.

The modernized F–14D, F–18, AV–8B and A–6F will be 90 percent common in such subsystems as avionics, cockpit displays, computers, and pumps. This is the first time this has ever been done. The savings will be enormous in training, in test benches, in spare parts management and in production of and competition for those subsystems.

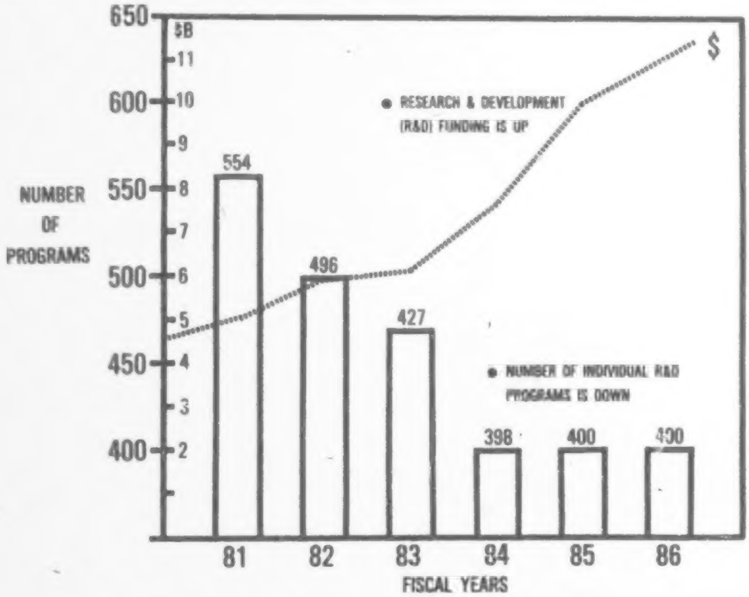
AFFORDABILITY: "THE BEST IS THE ENEMY OF THE GOOD ENOUGH"

- MANAGEMENT INITIATIVES TO STOP "GOLD PLATING" & CONTROL DESIGN CHANGES

  - SHIPS CHARACTERISTICS IMPROVEMENT BOARD ESTABLISHED
  - AIR CHARACTERISTICS IMPROVEMENT BOARD ESTABLISHED
  - PROGRAM MANAGEMENT PROPOSAL (PMP) SYSTEM: NO CHANGES WITHOUT SECNAV/CNO/CMC SIGNATURE
  - RESTORE ACCOUNTABILITY
  - BLOCK UPGRADES ONLY: NO CHANGES EXCEPT AT CONTRACT RENEWAL TIME

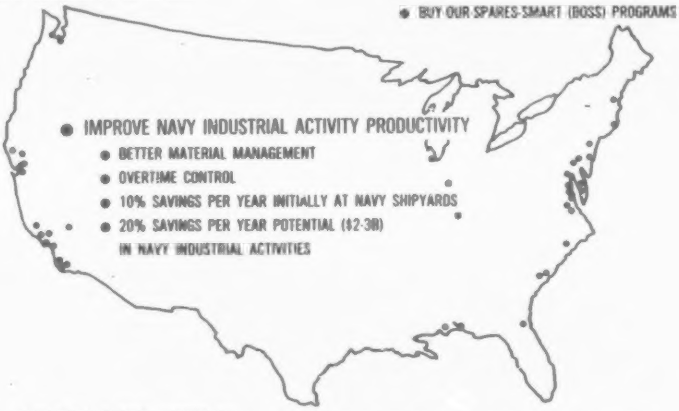
The best is the enemy of the good enough. That sign on the left says no more bells and whistles. We have instituted a war on gold plating. The Commandant, the CNO, and I have to personally sign any change, or any engineering change order to any ship, aircraft, or major weapon system before any contract is allowed to be modified with an Engineering Change Proposal [ECP]. This has been in force for 2 years and has produced spectacular successes. We have organized this with an Air Characteristics Improvement Board and a Ships Characteristics Improvement Board. Both are really degold plating boards. We have moved to no changes at all between contracts. It is block upgrades only, with nothing in between.

AFFORDABILITY:
"STOP CHASING R&D RAINBOWS"



"Stop chasing R&D rainbows." Again, we have put our money where our mouth is. Four years ago, I said we were going to greatly reduce the number of R&D programs and put the money where the greatest payoff would be. You see here that dramatic reduction from 554 to a level of 400. We intend to maintain that level for the long term, even as the money has increased. As a result, we are seeing much higher productivity in the R&D programs themselves.

AFFORDABILITY: THROUGH PUTTING OUR OWN HOUSE IN ORDER



- IMPROVE ACQUISITION EXPERTISE
  - NAVY MATERIAL PROFESSIONALS
- ATTACK WASTE, FRAUD, AND ABUSE
  - HOT LINES
  - BUY OUR SPARES SMART (BOSS) PROGRAMS
- IMPROVE NAVY INDUSTRIAL ACTIVITY PRODUCTIVITY
  - BETTER MATERIAL MANAGEMENT
  - OVERTIME CONTROL
  - 10% SAVINGS PER YEAR INITIALLY AT NAVY SHIPYARDS
  - 20% SAVINGS PER YEAR POTENTIAL ($2-3B) IN NAVY INDUSTRIAL ACTIVITIES

• NAVY INDUSTRIAL ACTIVITIES

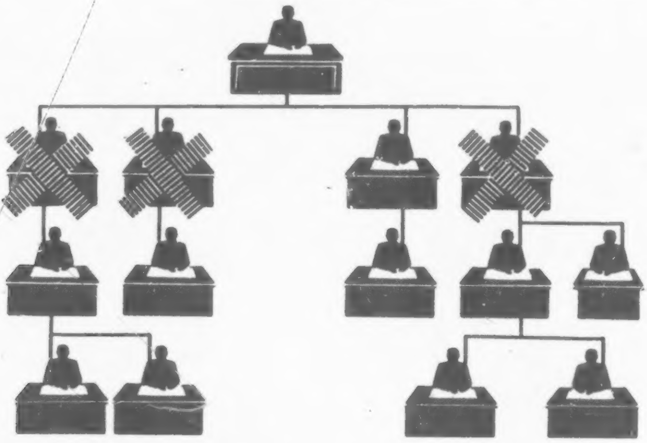
ORDNANCE/WEAPONS /ENGINEERING FACILITIES
PUBLIC WORKS CENTERS
LABORATORIES
SHIPYARDS
AIR REWORK FACILITIES

You are familiar with the major changes we have made with our "Buy Our Spares Smart Program." We have documented $134 million so far in spare parts cost underruns, from the original budgets; because of this and are carrying this forward with great vigor.

We have established the most dramatic change in manpower career planning in, I think, the history of the Navy with the new Material Professional [MP] Program, where a third of our flag officers are blocked to become MP's. We have established a new career path for those professionals in managing the Department of the Navy's resources development and material.

We are now in the middle of a major reorganization of our industrial facilities. Shipyards, naval air rework facilities, laboratories, and ordance facilities have to be put now on a sound business basis with much more cost-effectiveness than they have been in the past. You will see very fundamental changes in organization in the next 6 months in that regard.

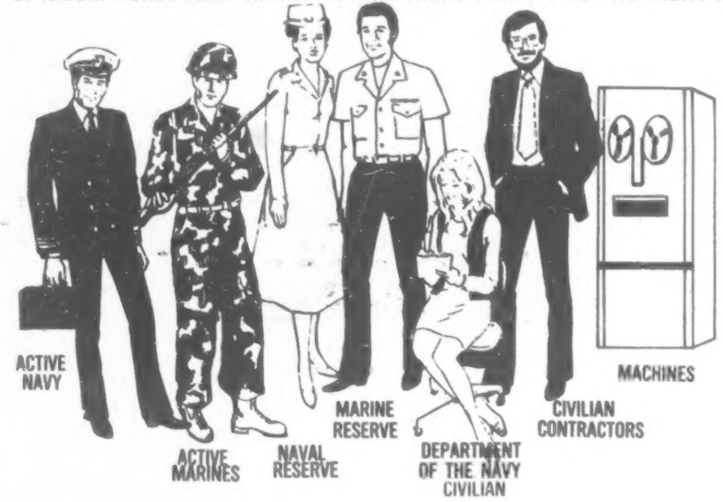
AFFORDABILITY:
DE-ORGANIZING AND DECENTRALIZING THE BUREAUCRACY



Deorganizing and decentralizing the bureaucracy. You have heard me speak before of the bureaucratic bloat that ties the hands and the common sense of so many of our people. We are deorganizing. We have disestablished the naval material command, and we are decentralizing each of the three systems commands and carrying that decentralization forward throughout the rest of the Navy.

We will have a 10-percent reduction in each of the systems' commands and headquarters staffs. Let me note, Mr. Chairman, that the trend in the Department of the Navy in headquarters staffs has gone exactly opposite to the trend in Congress and other major components of the Defense Department over the last 20 years or so. We have reduced headquarter staffs 50 percent while the rest of the Government grows.

AFFORDABILITY THROUGH BETTER USE OF OUR PEOPLE

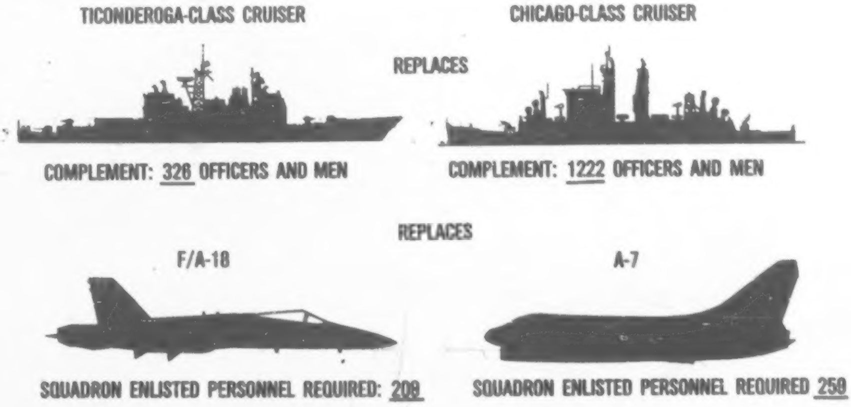


OPTIMUM FORCE MIX: MATCHING THE RIGHT PERSON TO THE RIGHT JOB

ACTIVE NAVY
ACTIVE MARINES
NAVAL RESERVE
MARINE RESERVE
DEPARTMENT OF THE NAVY CIVILIAN
CIVILIAN CONTRACTORS
MACHINES

Putting the right people against the best use. The reserves, the civilians and contract manning. We have achieved tremendous savings through contract manning, union manning, of many of our support ships, and we are going to continue that.

AFFORDABILITY THROUGH HIGH-TECHNOLOGY



TICONDEROGA-CLASS CRUISER
REPLACES
CHICAGO-CLASS CRUISER
COMPLEMENT: 326 OFFICERS AND MEN
COMPLEMENT: 1222 OFFICERS AND MEN
REPLACES
F/A-18
A-7
SQUADRON ENLISTED PERSONNEL REQUIRED: 208
SQUADRON ENLISTED PERSONNEL REQUIRED 250

Affordability through high technology.

You can see it here and you have heard it before. The new *Ticonderoga*-class cruiser has 326 officers and men. The ship it replaced had about 1,222 officers and men and yet, *Ticonderoga* is many, many, many times more effective in war fighting than the ship it replaces. Thanks to high tech, we are lowering the cost of ownership.

F/A-18 squadrons have about 209 expensively trained people. It costs an average of $150,000 to train each one of them. But this is 50 fewer than the A-7 squadrons that they replace. High tech yields affordability.

THE 600 SHIP NAVY

- STRATEGY
  - NATIONAL STRATEGY
  - MARITIME STRATEGY
- FORCES
  - 600 SHIPS
  - READINESS & SUSTAINABILITY
- AFFORDABILITY
  - COMPETITION
  - MANAGEMENT REFORM

So, to summarize, Mr. Chairman, we have a 600-ship Navy objective that is being achieved. It is derived with very rigorous logic from the naval tasks provided to us by our national defense strategy, which is decided by the President of the United States and which is based on our vital interests around the world.

Thank you, Mr. Chairman.

Mr. BENNETT. Thank you very much.

Mr. Hunter.

Mr. HUNTER. Thank you, Mr. Chairman.

Mr. Secretary, Admiral Watkins, and General Kelley, excellent presentation. I have a question with regard to our force mix, and particularly with regard to submarines. You mentioned that between January and July 1942, the U-boats sank something like 400 hulls very close to the United States, as your spots indicated.

Today, the Soviets have over 300 attack boats and my question to you is we talked about the necessity to maintain a maritime fleet. Do we have the capability of protecting a maritime fleet, a merchant fleet that would be necessary in wartime in light of the fact that we are dealing with a great many more Soviet attack submarines than the Germans had available and that they used very effectively in World War II?

CAPABILITY TO PROTECT MERCHANT FLEET

Secretary **Lehman**. That is an excellent point and the answer is that, with our current strategy, we have that capability. This assumes a full 600-ship Navy with the right balance; with 100 attack submarines and the other antisubmarine capabilities we need. It also assumes full participation by the allied navies, which we depend on so critically—the Royal Navy, for instance, we could on to supply 70 percent of the ready NATO forces for protection of shipping in the eastern Atlantic and English Channel for instance. We count on the availability of the Air Force assets that are integrated into our strategy.

The strategy you have just been briefed on is a forward strategy. It requires that we take the initiative to defend our vital areas and to be able to do so early on. We believe we can protect the vital lines of communication and our sealift assets and protect it from attrition if we are able to implement the strategy that we have just outlined to you.

If we were forced to a passive strategy, such as some have advocated, then we would provide the Soviets with the opportunity to prey on our vulnerabilities and fight a war of attrition against our merchant marine. We would start taking losses as we took in World War II because merchant ships don't go any faster today and are, in fact, bigger targets than they were then and the Soviet attack subs are far more effective. If that ever happens, we cannot replace them; we cannot fight a war of attrition in strategic sealift and that is the surest formula for losing the war that I can think of.

Mr. **Hunter**. You are going to have to kill a lot of the Soviet platforms before they position themselves close to the United States where they might catch our shipping coming out of the coast.

Secretary **Lehman**. That is absolutely correct and that is our intention.

Mr. **Hunter**. Thank you.

Jim, do you want to add to that? Admiral Watkins, you might comment on how we need another 50 submarines, because I think we need 150 attack boats instead of 100.

Admiral **Watkins**. We, of course, recognize that if we had no resource constraints we would have more submarines. We would also have some more aircraft; we would also have some more surface ships. We would have some more capability across the board. But we don't have that kind of unconstrained resource potential in the country and so, therefore, we must accept a tight strategy. It is very tight.

It is all based on the fact that our allies are going to be with us; that we can husband our resources together as a nation with our sister services; that we can fight sequentially; that we have the political will at decisionmaking time to move forces early to do the kinds of things that are tough politically. Those decisions are very critical to success and we see it in our war games.

In fact, Jack Edwards, formerly with the House Armed Services Committee, Subcommittee on Appropriations, was with us at Newport during the global war games we just fought this spring. He said it was so revealing to him, that if he had that knowledge, at the time of what was necessary to make this Nation well in times of crisis and work closely with the Defense Department, with State, with the White House, and so forth, he would have made a difference in his decisionmaking process on Capitol Hill. He would have been a greater proponent of what we are trying to do. So we are going to try to bring key Members of the Congress up to these war games and let them observe and watch and participate with us in the decisionmaking process.

All of these forces are germane to the strategy, so we don't have much flexibility left. We don't have attrition ships or extra cargo ships; we don't have excessive combatant units. We do rely on our allies. We must keep our alliances solid. All elements, then, play very much in the strategy. But with those caveats, the answer is we are building the right Navy for the threat we are going to face from now until the end of the century.

Secretary LEHMAN. But as you have seen, 600 is a floor. It is the absolute minimum that gives us the capability to carry out a successful strategy. We would like a little more assurance, but given the realities, this is the minimum that we can support.

Mr. HUNTER. Thank you. Thank you for an excellent briefing, gentlemen.

Thank you, Mr. Chairman.

Mr. BENNETT. Mr. Bateman.

Mr. BATEMAN. Thank you, Mr. Chairman.

I, too, would like to compliment the Secretary and Admiral Watkins and General Kelley for the splendid presentation and would like to join my colleague, Mr. Hunter. My first question is something of a follow-on of his.

Mr. Secretary, you have mentioned that there has really been no change in the force structure in some 4½ years and certainly you have made a very excellent presentation of a maritime strategy for the United States.

What leaves me with an element of concern is—I don't know whether the Soviet naval strategy has changed in 4½ years, but I think we all know that their force structure has changed in the last 4½ years, and we see no signs that they are not going to be pushing further and further into increases in their force structure. Certainly we see nothing but significant incremental changes in their submarine capability in terms of numbers.

We are seeing increasing sophistication in what they are building by way of their submarine forces. We even see them constructing a large strike *Nimitz*-type aircraft carrier. If memory serves, it is being constructed in a Black Sea shipyard. That obvious thing called an aircraft carrier—I cannot conceive that they are going to leave deployed in the Black Sea. I don't know of any possible military or naval purposes that would be usefully served by remaining in the Black Sea.

I would like, as a part of the question I am asking, if you could focus on whether or not our State Department, our National Security Council, or anyone has focused on this carrier moving through the straits in controvention of the convention. Is something that we are talking to anyone about or whether we plan on suggesting that someone protest it being done?

I would like your views on that specifically, but in general, my concern—and the question goes relative to the other increasing Soviet naval build-up that has taken place in 4½ years and which we can project into the future, presumably without abatement—can we be sanguine about our force structure based upon the 600-ship Navy?

600-SHIP NAVY FORCE STRUCTURE

Secretary **LEHMAN**. Congressman, you raised several very useful points. First of all, the force structure has changed dramatically in the U.S. Navy and Marine Corps. We have added more than 75 battle force ships, including a nuclear-powered aircraft and 2 battleships; so, we have made significant changes in 4 years.

The objective has not changed, which is the major point of the briefing. We have seen nothing in the intervening 4 years to cause us to modify in any fundamental way the objectives that we set forward 4½ years ago. The Soviet force structure is about the same as it was in numbers 4½ years ago. While the qualitative improvement has been dramatic with the *Kirov* and with several new attack submarine designs and so forth, but that was not a surprise.

In fact, over the past 4½ years, the only surprise we have seen has been the one that Admiral Watkins has spoken to, the surprise at the rapidity with which they have been able to obtain Western technology to apply to their submarines and so forth. But, the production rates, the types of ships, the fact that they are building a new carrier, have gone, as we predicted and expected 4½ years ago.

So the objective was set against the force structure we expected to see. We are now seeing that. No surprises.

The aircraft carrier was known about then. It was predicted. It has taken actually a little longer than we had expected. The Montreaux Convention is an issue I won't address except to say that when the *Kiev* proceeded out of the Black Sea, that was the time when the issue would have been first joined. That was their first aircraft carrier. The new one will be different in size, more than any other way. It is an issue for the State Department to grapple with.

Mr. **BATEMAN**. If I might, Mr. Chairman, as a follow-on to the discussion, the briefing suggests that the Soviet Navy is likely a defensive arm of their total military capability, and certainly I am not equipped to argue that point. But I have a concern that, given the nature of the Soviet Union, their government, their society, that they will know long in advance when or if they choose to attack where they choose to attack, the level of their attack and certainly control the timing of when it would come.

I have this sort of a nightmare scenario of where, over a period of time, increments of their submarine forces are forward deployed increment-by-increment, increment-by-increment where they want them to be when they choose to use them for purposes of an attack and that perhaps our antisubmarine warfare capability, as good and as sophisticated as it is, may not be equal to the challenge in terms of the numbers that we have to utilize.

Would you allay any of my fears?

Secretary **Lehman**. Yes; first, that was a wrong impression that you may have gotten from the briefing. The purpose of a Navy built to the sophistication and the size that we have seen is not a coastal defense Navy. As Admiral Gorshkov wrote so eloquently in the book quoted by the commandant, their planning is, of course, as any Navy's is, first to meet one's home defense requirements. But of course, they have gone far, far beyond that. There is no need for a coastal defense force to have 270 attack submarines and to design 15 different models and classes of attack submarines. It is an offensive force. It is designed in no small measure to prey on the vulnerabilities of our own alliances and to interdict our own sea lines of communications. It is very offensively built and trained. So you are quite right in pointing that out.

Are we able to deal with it? Let me reemphasize, we have here a high-risk force structure. We would like more insurance. I could very strongly support 130 attack subs, even in a constrained budgetary environment. I could very well support the 22 aircraft carriers that the Chiefs have for so many years supported. I think we could very well use more insurance, given the horrendous price of miscalculating on the low side. There is nothing more disastrous than risking the outbreak of a war, so I would rather see more insurance. But I think that if we get the 600-ship Navy, and after all, there are those that are saying we shouldn't even have 600, I think if we are able to sustain that size Navy, we can deal with what is a prudent risk level, assuming our allies carry their part of the load.

Mr. **Bateman**. Mr. Chairman, if I have a little more time, there is one other area I wanted to ask about.

Mr. **Bennett**. I don't mind. I am trying to cut it off by 12:30. I am not going to ask any questions myself, but I have to leave here at 12:30.

Mr. **Bateman**. Mr. Chairman, I don't want to monopolize the questioning.

Mr. **Bennett**. Fine. It is just that I have to go someplace at 12:30. Go ahead and ask your question.

Mr. **Hunter**. Talk quickly. [Laughter.]

Mr. **Bateman**. The question will be reasonably quick. The Secretary, I am sure, can control the timing of the answer.

The question relates to the Navy's current thinking with reference to the aircraft carriers. You mentioned the decision with reference to the *Coral Sea* and the *Midway* to retain them in the force, as opposed to deactivating them, and I am not questioning the merits of that decision; I am not the most competent to judge it, but over what timeframe can we continue to utilize or depend upon the *Coral Sea*, the *Midway*, to maintain our capability and, more significantly, perhaps, we are entering a timeframe where the *Enterprise*, the first of the nuclear-propelled carriers, is approaching some 40 years of age. I would like to know what the Navy's thinking is with reference to these and sustaining at least the 15-carrier task forces.

15-CARRIER TASK FORCE

Secretary **Lehman**. Yes; the 15th carrier, the last carrier now currently under construction, *George Washington*, will deliver to the fleet in 1991. That will allow the *Coral Sea* to then replace *Lexington* as the training carrier. The replacement of *Midway* will then have to be laid down at least at about that time, roughly the 1989 to 1991-92 timeframe. We must begin long-lead procurement for the replacement of *Midway*.

We would like to see that the production base at the only yard producing *Nimitz* class carriers is protected and, when *George Washington* completes, that heel-to-toe, we can begin on another one to keep the production base going and perhaps a two-carrier buy may then be in order again. The first two-carrier buy, that we have now under way, has been so successful.

Enterprise, we see—we currently plan to SLEP the *Enterprise* in the Service Life Extension Program [SLEP]. We think what when she reaches the end of her expected 30-year life, about that time period, 1990, that she will have another 15 years, at least, of good service in her, if we give her a SLEP, and that is what we intend to do.

Mr. **Bateman**. Mr. Chairman, I liked about 85 percent of that. I have some questions about 15 percent of it, but I will pursue those later.

Mr. **Bennett**. I have some written questions, and without objection, they will be put in the record.

[The following questions were submitted to the witnesses to be answered for the record:]

SHIP PROCUREMENT PRIORITIES

Mr. Bennett: What are the Navy's ship procurement priorities?

Secretary Lehman: The Navy Five Year Shipbuilding and Conversion Plan which is submitted to the Congress each year reflects a careful balancing of the numbers and mix of ships which the Department believes are essential to our ability to carry out the maritime strategy in the face of the current and projected threat. The Navy's ship procurement priorities are reflected in this plan. The contributions of our allies and the other services, a vital component of our maritime strategy, are also taken into consideration.

Mr. Bennett: In the event that SCN funds are reduced, what types of ships would be most likely to be scratched from current procurement plans?

Secretary Lehman: If reductions in SCN funds were made we would have to reexamine our shipbuilding plan to consider the impact. Recommendations on which ships to delete would be made so as to minimize adverse effects on our ability to carry out the maritime strategy. Also, we would try to minimize potential increases in unit costs resulting from potential loss of competition. Volume is a prime factor in maintaining a productive shipbuilding industry.

SHIP LIFE EFFECTS ON FORCE GOALS

Mr. Bennett: Specifically with respect to attack submarines the Congressional Budget Office (CBO) indicates that under the Navy's plans for building new SSNs the achievement of a force goal of 100 SSNs depends heavily on how long we keep our existing SSNs. Do you agree with that conclusion?

Secretary Lehman: Yes, SSN force levels are dependent on the SSN building and retirement rates. The current building rate and retirement plans support a force level of 100 SSNs through the early 1990s.

Mr. Bennett: What is the nominal service life we expect from our SSNs? How much will it cost to maintain their effectiveness this long?

Secretary Lehman: The nominal service life expected from our SSNs is 30 years for STURGEON (SSN 637) Class and later ships. A typical STURGEON Class SSN currently costs about $10 million dollars per year to operate. During the 30 year lifetime these SSNs are overhauled four times at a cost of approximately $100 million dollars per overhaul in current year dollars. These costs are necessary to maintain material conditions adequate for safe operation and to conduct necessary modernization.

Mr. Bennett: Do you agree that at a nominal SSN lifetime of 25 years the attack submarine force would settle out at about 90 SSNs instead of the goal of 100?

Secretary Lehman: The planned attack submarine building rate will sustain the desired force level of 100 SSNs. Should the nominal SSN lifetime of 30 years be dropped to 25 years the force level would reach a lower equilibrium with the current building rate.

AFFORDABILITY OF SSN 21

Mr. Bennett: Witnesses before this Committee have testified that the military requirement, as opposed to the constrained requirement, for nuclear attack submarines is at least 130 ships, not the 100 ships contained in current force objectives. The proposed next generation attack submarine, SSN-21, will be still more expensive that the SSN-688 — perhaps twice as expensive. Attack submarine force levels in the future could erode even further below those needed with the sharp increase in the unit cost. Does the Navy see this as a problem and what course of action does the navy intend to take to deal with it?

Secretary Lehman: The cost ceiling for the SSN-21 lead ship is $1.6B in FY 1985 dollars. The cost ceiling for the fifth and follow-on ships is $1.0 billion, about 30% more than the Improved SSN. The SSN-21 effectiveness, across the entire range of expected wartime missions, is about three times that of the Improved SSN. The return in increased combat capability gained with the SSN-21 makes it a very cost effective weapons system.

The Navy's attack submarine procurement plan provides sufficient enrichment of submarine force capability to counter the projected Soviet threat. This plan will permit us to maintain an affordable 100 SSN force, sufficient to execute the U. S. Maritime Strategy, with about the same share of shipbuilding (SCN) funds as the attack submarine force has historically enjoyed.

AMPHIBIOUS LIFT CAPABILITY

Mr. Bennett: How does the Navy plan to maintain amphibious lift capability through the 1990's and into the next century?

Secretary Lehman: The current construction program will achieve the required lift capability during the mid-1990's. The acquisition of the LHD, LSD 41, and the LSD 41 (VAR) cargo variant ships are needed to achieve an over-the-horizon assault capability and attain the amphibious lift requirement. Construction of the LSD 41 (VAR) maintains the lift capability of the retiring LPD 1 class ships during the 1990's and the LKA, LST, and LSD 36 class ships at the turn of the century. The LPD 4 service life extension program prolongs the life of this ship class for 15 years. The feasibility of extending the service life of LKA, LST, and LSD 36 class ships will be examined during the early 1990's.

Mr. Bennett: Do you expect the types and quantities of Marine Corps equipment to be moved — the so called "lift fingerprint" — to remain as projected today"

Secretary Lehman: The "lift fingerprint" used today is based on the Marine Corps equipment of the 1990's. This projection is not expected to change in the foreseeable future because new types of equipment that are entering or will enter the inventory were considered when this "fingerprint" was developed.

Mr. Bennett: Are any more service life extensions (SLEPS) or amphibious ships possible in lieu of new construction?

Secretary Lehman: No...the LPD 4 class ships are the only ships projected to retire during the 1900's for which a service life extension program is an economical alternative to new construction. The service life of LST, LKA, and LSD 36 class ships is projected to end in the early 2000's. During the early 1990's the feasibility of extending the service life of these ships will be examined. Such future programs do not affect our need to build the ships in the present construction plan to achieve the required mid-1990's lift capability.

Mr. Bennett: Is there a cheaper way of getting the same capability of the expensive amphibious assault ship (LHD) through a combination of other, less expensive ships?

Secretary Lehman: No...the LHD is designed to provide a balanced amphibious capability for both helicopter and landing craft supported assaults. Splitting this capability among other types of ships will not obviate the need for a large aviation capable ship to operate and maintain AV-8 aircraft and helicopters. Additionally, the LHD is a multi-purpose ship with the capability to perform sea control missions when not employed in the amphibious role.

MINE COUNTERMEASURES SHIP

Mr. Bennett: The Navy's program for buying mine countermeasures ships apparently ends in 1989. Some believe this program will provide inadequate mine warfare capability even when completed. What is the Navy doing beyond the construction of the 31 MCMs and MSHs towards obtaining additional mine warfare capability?

Secretary Lehman: The force levels to which we are building will meet today's requirements to support our worldwide maritime strategy; whether or not these same assets will satisfy our long term needs is yet to be determined. A comprehensive study has been initiated to review force level requirements into the year 2000. The results of the study will be available October/November 1985, however, it is anticipated that at a minimum our requirement for 17 MCM-1 class and 14 MSH class will be revalidated.

AEGIS FOLLOW-ON CRUISERS

The Navy seems to have no plans for a follow-on cruiser-size ship beyond construction on the last TICONDEROGA class AEGIS cruiser scheduled to start in 1989.

Mr. Bennett: Does the Navy see a continued role for ships of this size beyond the current CG-47 program?

Secretary Lehman: We intend to begin a study effort in FY 1989 to examine alternative approaches to replace the CG-47 class which begins retirement approximately 30 years from now. We do not foresee the need for a cruiser/destroyer larger than CG-47 and DDG-51 until that time.

Mr. Bennett: What advantages would a cruiser-size ship begun in the late 1990s, have over the DDG-51, which by that time would be considerably cheaper?

Secretary Lehman: We must study the data.

REAL PROGRAM GROWTH

Mr. Bennett: In a recently published paper, the Congressional Budget Office (CBO) concluded that the Navy will have to sustain real budget growth of 3-6 percent through the mid-1990's in order to achieve and sustain a 600-ship Navy of lasting quality. CBO says that this kind of sustained growth would elevate the Navy's budget to twice the level of the last three decades in real terms.

Do you agree that such growth will be needed?

Secretary Lehman: The 600-ship navy has been bought; the new ships required have all been authorized and appropriated; and most are now under construction. While real program growth can be a useful indicator of the relative buying power of two different years, it may mask significant differences by assuming that the only change between those two-years is the total dollar level. Management actions that create savings are not reflected in real program growth calculations nor is the effect of designing new ships and weapon systems to be less personnel or maintenance intensive.

We have eliminated gold plating, capricious design changes and other undisciplines. We have introduced competition and tough, but fair, contracting. As a result our ships and weapons costs have declined steadily for four years.

We will need about 3% real growth to sustain a 600 ship Navy with adequate personnel, ammunition, and training.

Mr. Bennett: Given that the Navy hasn't ever had five consecutive years of real program growth since the end of WW II, do you believe such growth is achievable?

Secretary Lehman: Any level of growth is achievable if the Administration and the Congress desire to achieve it. While real program growth can be an indicator of the relationship between two successive budgets, there is no validity in using historical levels of real program growth to predict future levels. Each year's budget must be built by examining current and projected assets, the projected threat, and the priorities of the Navy's senior management, the Secretary of Defense, and Congress. Changes in the existing threat, available resources, including those available as a result of management improvements, and management's priorities all assist in the formulation of each fiscal year's budget. It is only after force level considerations are met that real program growth is calculated, and then only as a shorthand way of showing what has happened year-to-year.

Mr. Bennett: If funds appropriated for the Navy fall below those needed to support current plans, in what areas of procurement or support do you anticipate most of the necessary adjustments would be made?

Secretary Lehman: It is difficult, if not impossible, to determine where adjustments would be made. Resource decisions are not made in a vacuum. The resources available are balanced against management's priorities, as determined by the need to counter the existing threat. The resulting budget request reflects this balance, with neither a change in the threat nor a change in appropriations levels alone dictating what programs will be affected.

INVESTMENT/SUPPORT COSTS FOR THE 600-SHIP NAVY

Mr. Bennett: As the Navy continues to buy ships, aircraft, and weapons needed to sustain 600 ships and 15 aircraft carrier battle groups it is spending proportionately less on support costs than on investment costs. (Investment costs include procurement, RDT&E, and MILCON; support costs include operations and maintenance, military personnel, and stock funds.)

What, in your view, is an appropriate guideline—if such can be said to exist—for the relationship between investment and support costs?

Secretary Lehman: There is in fact no easily definable rule of thumb to derive the follow-on support costs of a certain level of investment. While after the fact analyses can indicate historical trends, such analyses can not be used to define what support costs should be or will be in the future. The total level of investment is made up of hundreds of separate programs, with differing development and delivery schedules. Obviously, support costs are defined system by system and then aggregated. This total does not have a causal relationship to the investment total.

SUPPORT REQUIREMENTS FOR THE 600-SHIP NAVY

Mr. Bennett: Will the increasing size and complexity of the fleet create proportionately greater demands for support?

Secretary Lehman: No. While the increasing fleet will require support, we have designed ships that can be supported by fewer personnel (for example, the ARLEIGH BURKE Class destroyer, DDG-51, which Congress funded last year, is equivalent in size and far exceeds the firepower of a WWII cruiser. Yet the DDG-51 manning requirement is less than one-third of a comparably sized WWII cruiser). Additionally, we are investigating extended operating cycles, substitution of shorter maintenance availabilities for overhauls and designing in increased reliability and maintainability.

NAVY SHORTAGES OF ORDNANCE AND SPARE PARTS

Mr. Bennett: What are the Navy's planning and programming goals through the mid-1990's in ordnance and spare parts? What would it cost to bring current ordnance and spare parts levels up to those goals?

Secretary Lehman: Planning and programming goals, as specified in DOD Defense Guidance, are to fund days of sustainability by certain years as follows:

[Deleted]

It would cost the following amounts, in addition to currently programmed funding, to bring current levels up to these goals:

[Deleted]

Mr. Bennett: What would be the cost to bring inventory levels up to a [deleted] sustainability, [deleted] sustainability and [deleted] sustainability?

Secretary Lehman: The approximate costs, in addition to the FY-86 budget request, to achieve each of the sustainability goals in FY-86 would be:

[Deleted]

It must be noted, however, that these requirements could not all be bought in FY-86. Ability to acquire the inventory is limited by production constraints and other factors.

Mr. Bennett: How many deployed and non-deployed ships are going out to sea lacking the ship-designated complement and mix of ordnance and spare parts?

All ships deploy with full allowances of spare parts and ordnance assets. When ordnance assets are insufficient to meet unit shipfill requirements, priority is given to filling deploying ships with commensurate light loading of non-deployers. There are instances caused by changes in failure rates, extended procurement pipelines, and equipment configuration changes which can result in outfitting deficiencies. The Navy overcomes these temporary deficiencies by cross-decking parts among ships. The FY-81 and FY-85 initiatives to fully fund ships and aviation repairables coincident with the stock funding of these items have enabled the Navy to significantly reduce the number and duration of these allowance shortfalls.

LONG RANGE PLANNING FOR AIRCRAFT CARRIERS

Between the year 2000 and 2010, 8 aircraft carriers will reach the end of their nominal 45 year service lives. To retain 15 deployable aircraft carriers, replacements for these ships must be authorized in the 1990s. These replacements will cost a total of approximately $28.0 billion in today's dollars based on current carrier acquisition costs and will remain in the fleet until the middle of the 21st century. Considering the budget implications and changes in naval warfare technology a thorough analysis of the role of the aircraft carrier in early 21st century naval warfare is needed.

Mr. Bennett: Explain to what extent the Navy is doing long range studies of early twenty-first century warfare?

Secretary Lehman: The Navy is continuously engaged in a variety of activities to test its present and projected strategy, tactics, force levels and weapon system characteristics. These include real world lessons learned, exercises, war games set in the future, advanced tactical training and studies. Studies have been both internal and contractor-supported, classified and unclassified.

All of these studies indicate a growing vulnerability of fixed land-based installations and a steadily increasing relative advantage for sea-based air platforms in the 21st century.

Mr. Bennett: What should their characteristics be, and what sort of aircraft should they carry?

Secretary Lehman: Only the large deck carrier with her modern flexible airwing and offensive and defensive power of supporting surface and subsurface units has the full range of capabilities to meet the entire spectrum of threats regardless of where or how they emerge.

The Navy has seriously and professionally examined alternate basing schemes to determine what size, type, and configuration of ship would provide the best basing for current and future aircraft and what the total capacity of the basing structure should be. In considering these alternative structures, emphasis has been on warfighting capability, operational suitability, and life cycle costs. The conclusion substantiates the large deck nuclear powered aircraft carrier as the most effective and efficient platform for basing our current and future tactical aircraft. While a similar number of aircraft could be distributed in smaller ships, the cost would be individually greater, the total effectiveness should be less, the ships would be less survivable and an already complicated and expensive logistics problem would be compounded.

The airwing that they carry must be balanced across the spectrum of potential power projection or sea control missions that battle groups must conduct. Similarly, their performance and take-off and landing characteristics (CTOL, STOAL, STOVL, or V/STOL*) will be determined by the missions they are required to perform. In the future, I foresee a mix of long range CTOL supersonic fighters and attack aircraft and subsonic high endurance V/STOL aircraft for surveillance, ASW, and logistics.

*CTOL = Conventional takeoff and landing.
STOAL = Short takeoff and arrested landing.
STOVL = Short takeoff and vertical landing.
V/STOL = Vertical/Short takeoff and landing.

CARRIER AIRCRAFT

Mr. Bennett: Explain how older naval aircraft have been factored into the Navy's total aircraft requirement and how it will affect the Navy's ability to obtain its desired air wing composition?

Secretary Lehman: Aircraft inventory requirements are based on the carrier air wing composition and mission area effectiveness studies. These inventory requirements are based on a prudent risk force that is both fiscally achievable and responsible. We modernize the force, based on our technological gains and threat advances, within fiscal constraints established by the President and Congress. Older aircraft are retired when they have reached their established fatigue life or are technologically obsolescent. As newer models with enhanced subsystems (e.g. radar, computer) that provide the capability to meet the threat are improved, we backfit these subsystems into our existing inventory, usually with Service Life Extension (SLEP)/Conversion in Lieu of Procurement (CILOP) programs. F-4Bs and F-4Js, for example, were converted to F-4Ns and F-4Ss, incorporating improvements that allowed extension of these aircraft until the F-14 and F/A-18 could be procured in sufficient quantities to replace them in our wings. We combine modifications of existing systems, CILOP/SLEP and new procurements to ensure threat responsive equipment throughout our air wings.

Mr. Bennett: Explain how recent changes the Navy made to its desired air wing composition reduced the carrier's vulnerability to enemy action and increased its power projection capabilities? Have carriers become highly sophisticated, very expensive targets for enemy?

Secretary Lehman: Our recent air wing composition changes reflect both the introduction of new equipment and a synergistic view of the combined air wing assets. We evaluated, and are continuing to evaluate, our capabilities in major warfare areas. In anti-air warfare, for instance, we evaluated the contributions of the F-14, F/A-18, EA-6B, and E-2C. We then adjusted our mix in light of the effects of each platform on the AAW picture. A similar approach was taken in the ASW area. The remaining carrier space was allocated to strike assets. We maximized our capability in this area through a combination of F/A-18 and A-6 assets. The dual role capability of the F/A-18, coupled with its demonstrated reliability, maintainability, and survivability, allow it to swing from fighter to attack as the situation dictates. An increase in A-6 assets provides an increase in long-range, all-weather strike capability. Increased power projection capability and reduced vulnerability to air, surface, and subsurface threats are achieved by our new compositions. We also continue to improve the individual capabilities of each platform on our carriers with efforts such as the F-14D, A-6F, E-2C upgrades, etc. Carriers are high value units—as they have been since World War II. Our 600-ship Navy is centered around 15 carrier battle groups because the carrier remains the most potent and most flexible tool in our nation's conventional forces. Our carriers and their embarked wings are still our major edge over the Soviet Navy. They realize this—and are building their own. Our carriers warfighting capability are not in doubt—and will not be in doubt as we continue to enhance our air wing and battle group capabilities.

The more effective carriers become, the more they invite attack — military and political. But their very effectiveness makes successful attack extremely difficult. They are far more survivable than any land-based installation.

Mr. Bennett: Explain what revisions have been made to the Navy's aircraft procurement plans to reflect recent changes in desired air wing composition?

Secretary Lehman: The Navy's aircraft procurement plans have been calculated for a time-phased achievement of notional, MIDWAY and KENNEDY-type air wings. These planning objectives account for projected attrition, anticipated retirements, and the expected replacement structure for each aircraft type. In order to increase the capability of our air wings, the A-6 inventory requirements have increased. The F-14 inventory requirements decreased slightly but are tied closely to the slight increase in EA-6B and E-2C requirements The changes in the airwing composition does slightly reduce the rate at which F/A-18s are required. The F/A-18, however, is replacing several types of aircraft in the U. S. Navy and U. S. Marine Corps active and reserve forces. Additional mission areas are being evaluated for the aircraft and we envision the F/A-18 in our active inventory well past the year 2000. The projected total procurement of the F/A-18 has remained approximately constant.

Mr. Bennett: Will current procurement plans result in buying too many of some types of aircraft while buying too few of other types?

Secretary Lehman: No. A recent CBO study indicated that this was the case. The study was based on unclassified data and did not accuratly reflect present Navy plans with regard to inventory and force structure requirements. Because of fiscal constraints which conflict with procurement objectives to buy aircraft at economical rates, shortfalls, and surpluses of specific models may occur from year to year. Additionally, a declining inventory may be acceptable in an aircraft type for which a replacement is imminent. Long-term major shortfalls or surpluses, generated by changing force-level requirements or fiscal constraints are identified and corrected annually during the POM process.

Mr. Bennett: Explain how Marine Corps aircraft requirements are considered in determining total carrier requirements? Are they deployed on carriers? If not, why not?

Secretary Lehman: The Marine Corps has separate and distinct requirements for its air wings which provide air superiority and close air support for amphibious landings. Navy carrier battle groups cannot be tied solely to these amphibious operations. Therefore, requirements for each must be considered separately. There are contingencies where Marine squadrons are effectively utilized as part of air wings on Navy carriers. To effectively train for these contingencies, Marine Corps F-4, F/A-18, A-6, and EA-6B squadrons are now deploying on Pacific and Atlantic carriers and will do so for the foreseeable future. All Marine A-6E squadrons will become permanently part of Navy carrier air wings.

NAVY END STRENGTH

Mr. Bennett: As the Navy increases its active fleet to a 600-ship force by 1990, additional personnel will be required. The Navy projects that active enlisted personnel end strength needs to increase by about 26,000 between 1986 and 1990 to meet that requirement. The Navy, however, must operate in accordance with Congressionally authorized personnel end strength.

How does the Navy plan to compensate for the reduced end strength increases?

Secretary Lehman: Reduced end strength increases recently have been compensated for by concentrating our authorized growth towards operating forces, leaving some shortages in the direct fleet support areas including maintenance, training, medical, and logistics support. We have also more efficiently utilized active duty manpower by means of expanding the missions for reservists, civilianization, contracting out, and various efficiency and productivity programs.

Mr. Bennett: What are the effects on ship manning and shore establishment manning?

Secretary Lehman: So far we have adapted to the smaller increases, but more ships will require more personnel.

Mr. Bennett: Identify and explain what additional actions can be taken by the Navy to compensate for future limits on end strength increases?

Secretary Lehman: Congress has already given us the 600-Ship Navy; it is under construction; it will be here. As I stated in my posture statement, because of Congressionally imposed reductions in the last three years, our end strength increase has not matched requirements of the ships that have been added. The shortfall has been imposed primarily on the shore establishment. That expedient can not absorb further cuts. Compensating for any future limits on military end strength increases would require civilianization, contracting out, and various efficiency programs that would require Congressional support in the form of authorized civilian manpower increases and contract funds.

Mr. Bennett: At what point will end strength caps adversely affect ship manning and readiness?

Secretary Lehman: Ship manning and readiness have not been affected only because of the short range expedients we have taken. Were it not for the preferential manning of fleet units, ship manning and readiness would already have shown the effects of end strength caps. Unless we get the modest increases requested for the next four years, ship-manning and readiness will be affected.

BATTLESHIPS

Original reactivation plans for the four IOWA class battleships considered a second phase modernization which included significantly increasing the number of Tomahawk cruise missiles carried aboard the ships. Current Navy plans for modernization of the battleships do not provide for any increase in Tomahawk capacity.

Mr. Bennett: Have the battleships' roles and missions been altered or reduced because they now will carry fewer Tomahawk cruise missiles than originally planned? If so explain how and why.

Secretary Lehman: The battleships' roles and missions have not been altered or reduced. After evaluating the operational effectiveness of USS NEW JERSEY in her present configuration, the Navy concluded that the reactivated battleship meets or exceeds all existing requirements, therefore a major upgrade was not needed and plans for a second modernization phase were cancelled.

Mr. Bennett: Why were the modernization plans revised?

Secretary Lehman: The Phase II modernization plan was cancelled as indicated in my letter of 20 December 1983. Instead, the battleships will receive modest self-defense, command and control, and hull and machinery upgrades during their expected service lives through the Fleet Modernization Program, as do all other active ships.

Mr. Bennett: Were initial requirements for TOMAHAWK launchers aboard surface ships overstated?

Secretary Lehman: TOMAHAWK launcher requirements aboard surface ships are reviewed periodically to ensure force levels are capable of executing designated missions in the face of a dynamic, evolving threat. Numbers of launchers planned have been generally consistent throughout the program's planning. It is our intention to arm all SSNs and surface combatants, larger than frigates, with TOMAHAWK.

Mr. Bennett: What other ship programs are being revised to compensate for the reduced Tomahawk capacity aboard the battleships?

Secretary Lehman: TOMAHAWK installation planning considers numbers of missiles required at sea to execute predicted mission requirements (part of yearly NNOR process), available hulls, weight and moment, impact of installations on the various classes, other modernization planned for these ships, cost availability for modernization, and existing yard period schedules. Decisions on which classes will carry how many TOMAHAWKs have been generally consistent.

BATTLESHIP'S MISSION

Navy officials have stated that the reactivated battleships must operate under tactical air cover. However, one of the roles assigned to these ships is to serve as centerpieces of surface action groups which are forces of surface combatant ships operating without aircraft carriers.

Mr. Bennett: How will the Navy provide air cover to the surface action groups? Are there certain areas where battleships can operate without air cover?

Secretary Lehman: Air cover for surface action groups can be provided by either carrier or land-based aircraft. When the surface action group is operating with a carrier battle group as part of a combined battle force, air cover can be provided by the carrier's embarked air wing. When operating beyond the range of carrier-based aircraft, the surface action group is dependent on either land-based aircraft or the anti-air warfare capabilities of the surface combatants in the group to counter the air threat.

The battleship can operate without air cover wherever the air threat is limited in numbers or weapons range. In those cases, the fire power of the anti-air warfare capable surface combatants, in the surface action group, is great enough to give reasonable assurance of mission success.

There are areas, such as the Caribbean where the air threat is composed of aircraft that must close within our SAM range to deliver their weapons. In these areas our TICONDEROGA-class cruisers provide the capability to control airspace around the battleship without fighter aircraft protection. On the other hand, massed raids by bombers, launching multiple long range antiship cruise missiles, require tactical air support. The battleship will not be sent into these high threat areas except as a component of a carrier battle force, or with the support of land-based air. Land based air will be provided at the direction of the Unified Commander based on his assessment of the priority of the battleship's mission and the availability of the aircraft.

Mr. Bennett: In what areas of the world and under what conditions can surface action groups operate under the cover of land-based tactical air forces?

Secretary Lehman: To provide coverage for the surface action group, the land-based tactical aircraft must be available in sufficient numbers, the intended scene of action must be within range of the land-base, the land-based aircraft must be able to arrive in time, and the air forces must be able to be incorporated into the command and control structure of the changing tactical situation at sea.

Surface action groups currently operate under the cover of land-based tactical air forces in certain areas of the Western Pacific, the Mediterranean, the North Atlantic, along both coasts of the United States, the Caribbean, and the Indian Ocean. Air cover is provided by land-based USAF, USMC, USN, and allied aircraft. USAF tactical squadrons are located in Alaska, in the Western Pacific (Japan, Okinawa, and the Philippines), in Europe (Spain, Germany, and Great Britain), in Iceland and on the East and West Coasts of the United States. AWACS aircraft operate in the Western Pacific, the Indian Ocean/North Arabian Sea, the North Atlantic, and on both U. S. Coasts. U. S. Marine Corps tactical squadrons are deployed to Japan and Okinawa.

Mr. Bennett: What agreements have been reached with other services to provide land-based tactical air cover?

Secretary Lehman: Assignment of land-based tactical air to support a battleship surface action group is the prerogative of the Unified Commander. All forces in his theatre are available for assignment to missions in accordance with his priorities. If he has decided to send the battleship surface action group into an area where the air threat is high enough to require land-based tactical air cover, the Unified Commander has the authority to allocate aircraft for that support. The USAF and Navy have numerous memoranda of agreement on joint USN/USAF Efforts to Enhance USAF Contribution to Maritime Operations. These memoranda establish a training program to prepare for optimum interaction between the Navy and Air Force.

T-AGOS MISSION

The Navy currently has 12 T-AGOS mono-hull ships under contract with Tacoma Boatbuilding Company. On April 5, 1985, the Navy awarded a contract for two additional T-AGOS mono-hull ships, with options for two ships to be funded in FY 86 and two in FY 87.

In planning the T-AGOS program, the Navy identified the SWATH concept hull as the preferred design for this vessel. Budgetary issues caused the Navy to settle on the contracted mono-hull design. Navy officials have recently suggested that a need exists to procure a number of SWATH design ships to perform the T-AGOS mission under conditions outside the design capability of the mono-hull.

Mr. Bennett: Recognizing problems with the T-AGOS ships under certain sea state conditions, and planning a major review of this program, why did the Navy proceed to award contracts through April 1985 for 14 ships with options for 4 more?

Secretary Lehman: The Navy decision to award a contract in April, for two mono-hull T-AGOS with an option for four additional units was based on an established need for a total of 18 mono-hull T-AGOS ships. The Navy has also reestablished the additional need for a hull form to allow SURTASS to operate in some operationally significant northern latitudes during the winter when the sea is rough. A review of the T-AGOS program has determined that the optimum mix of T-AGOS mono-hulls and SWATHs is Deleted respectively. A 1981 SURTASS Force Level Study concluded that a total of ○ units were required by the Navy. A recently completed update of the 1981 study substantiates the need for ○ units.

Mr. Bennett: Why doesn't the Navy withdraw its request for funding until a more accurate assessment is available for the T-AGOS mono-hull requirement?

Secretary Lehman: The proposed T-AGOS fleet represents a balanced combination of two factors: quantity and quality. A quantity of D units is needed Deleted over vast and often changing ocean areas. A small percentage of special T-AGOS units (such as SWATH) are needed Deleted in unusually heavy seas. To withdraw a request for mono-hull funds at this time would leave our future Deleted capability with inadequate area coverage. It must, however, be understood that the current T-AGOS mono-hull is based on a proven North Atlantic fishing hull and is quite capable of operating in almost any sea-state. Operations this year in stormy northern latitudes have proved its effectiveness.

Mr. Bennett: What advantages does the SWATH hull provide to address deficiencies in T-AGOS mono-hull operations?

Secretary Lehman: The T-AGOS has no design deficiencies for low to moderate sea state operations (up to sea state D. and recent operational experience has demonstrated the ship meets its design specification of sea state D The mono-hull is a high-quality, economical system to satisfy most operational requirements. The SWATH hulls will allow SURTASS to operate up to sea state Deleted with more crew comfort than the mono-hull.

600-SHIP NAVY

Mr. Bennett: Will we, in fact, be able to achieve a 600-ship Navy in the 1980's largely because of a decision to curtail ship retirements during this time?

Secretary Lehman: No. While we are extending the service lives of a number of previously underutilized ships that had been slated for retirement by the Carter Administration, the vast majority of ships added to achieve the 600 ship Navy are new construction ships. For example, we plan to take delivery of 108 new ships during the remainder of this decade.

Mr. Bennett: What ships is the Navy retaining that the previous administration had slated for retirement by 1990?

Secretary Lehman: The Navy cancelled the plans of the previous administration to retire the DDG-2 and DDG-37 class guided missile destroyers, the FF-1037 and FF-1040 class frigates and the aircraft carriers MIDWAY and CORAL SEA. Additionally, we are now planning to extend the service lives of one TAK cargo ship and five ASR submarine rescue ships into the mid-nineties

Mr. Bennett: What are the cost and force structure implications of waiting to retire these ships in the 1990s?

Secretary Lehman: These ships provide great capability at minimal cost to the taxpayers. They can be modernized at a fraction of the cost of a new ship yet provide a significant capability against the current and projected threat.

Mr. Bennett: Are these ships capable against the threat they will face during their remaining lifetimes?

Secretary Lehman: Yes.

FUTURE SURFACE AAW SYSTEMS

Mr. Bennett: Since the development of the AEGIS weapon system began about 20 years ago there has been no other serious attempt to develop a U. S. AAW system for surface combatants. What are the Navy's plans regarding surface AAW systems for the future?

Secretary Lehman: Though AEGIS is the only new surface ship AAW combat system developed in recent years we have kept abreast of the AAW threat by upgrading AAW combat systems and developing new subsystems. For example, in the 1970's we:

- Doubled TERRIER ships' SAM range and tripled their firepower capability by introduction of the CG/SM-2 Combat System and STANDARD Missile-2 (SM-2).
- Introduced the design-to-price AN/SLQ-32 Electronic Warfare System now deployed in surface combatants, amphibious, and MLSF ships.
- Employed our "soft" kill chaff capability (RBOC, super-RBOC) in surface combatants.
- Introduced the PHALANX close-in-weapon system (CIWS) now aboard the majority of our ships.

In the 1980's, we are:

- Introducing the CG/SM-2 Combat Systems in TARTAR cruisers with range and firepower enhancements commensurate to TERRIER.
- Introducing and deploying New Threat Upgrade (NTU) and the SM-2 Block II missile in 31 cruisers and destroyers.
- Introducing NATO SEA GNAT seduction and distraction cartridges, a family of offboard counter-targeting devices.
- Building upon the Anti-Ship Missile Defense (ASMD) capability of the SLQ-32 to improved its early warning, over-the-horizon targeting, and counter-targeting roles.
- Developing upgrades to combat direction systems aimed at improving system responsiveness and accuracy while reducing life cycle maintenance costs.
- Introducing the new 5-inch Rolling Airframe Missile (RAM).
- Upgrading both the NATO SEASPARROW surface missile system and PHALANX CIWS.

Regarding future AAW systems, the Navy will:

- Complete fleet introduction of systems mentioned above.
- Complete the development of the Advance Surface-to-Air Missile (ASAM).
- Develop an Advanced Tactical Radar System (ATRS) to counter the low radar cross-section threat.
- Develop an AAW conversion alternative for DD-963 class ships configured with the Vertical Launch System (VLS).
- Develop an AAW upgrade to the FFG-7 combat system which includes sensor integration, an improved fire control system and SM-2. The Navy will continue to maintain a balance between developing new systems and exploiting the growth potential of existing systems in order to remain abreast of the threat.

CONTINENTAL AND MARITIME STRATEGY

Mr. Bennett: There are some who believe that the Soviet Union is principally a land power--not a maritime power like the United States--and has viewed itself in those terms throughout history. The continued expansion of the Soviet fleet notwithstanding these analysts believe that the decisive engagements of any conflict with the Soviets would be on land, perhaps in Central Europe, and that naval battles would be much less decisive. Many of this group also feel that the U.S. Navy has limited capability to widen an otherwise contained conflict. The conclusion of these observers is that there is currently misallocation of resources between naval forces and land forces in our defense budget.

Mr. Lehman, how do you view the apparent dichotomy in the point of view that the Soviet Union is a land power versus a maritime power and the implications of this viewpoint allocation for the U. S. defense dollars?

Secretary Lehman: Observers reaching such conclusions exhibit a profound ignorance of warfare. There is no choice available between a continental or a maritime strategy to defend against Soviet aggression in Europe. No defense of NATO can be carried out without achieving control of the maritime theaters of NATO. Maritime superiority is prerequisite of any strategy for the defense of Europe.

Such a reality becomes self evident when the logistics of warfare are considered. Over 90% of the equipment and supplies necessary to sustain a defensive effort in Central Europe would have to be brought from the United States by sea. Given the current numerical superiority of Warsaw Pact land and air forces there can be no success in the European land theater without success in the Atlantic maritime theater.

Geography remains the most fundamental factor in the foreign policy of states because it is the most permanent. It is geography that has traditionally mandated that first Czarist, and then Soviet Russia, pursue a "Continental" strategy with an ancillary naval component of minimal importance.

By way of contrast, the United States and its European allies, blessed with ice-free coastlines and relatively free of the geographic constraints of choke-points have traditionally developed security and economic arrangements critically dependent on use of the adjoining seas. It is no accident that the Free World's principal military alliance is the aptly named North Atlantic Treaty Organization, while its nominal adversary is named for an inland city marked by a history of conquering armies and engulfment in the great land empires of the last three centuries.

But if geography is a principal factor, it is a factor that may turn on the military capabilities of opposing states. Thus, the unparalleled Soviet military build-up in land, sea, and air forces of the past two decades has resulted in a dramatic shift in the strategic meanining of such geographic locales as the Kola Peninsula. To an alliance such as NATO with previously unchallenged maritime supremacy, the Peninsula was a convenient "cork in the bottle," restricting limited Soviet naval forces to easily monitored (and, if need be, denied) access to the North Atlantic.

But to an alliance facing a largely unchallenged military increase in both Soviet land and naval forces, the Kola

Peninsula has become a "dagger at the heart" of NATO, a principal platform for the forward projection of Soviet military power. Today, the deployment of Soviet naval and air power from the Kola Peninsula and the Baltic, into the North and Norwegian Seas, would pose a critical challenge to NATO, and force on an alliance already at a severe numerical disadvantage on land, an equally difficult struggle to ensure freedom of movement on the seas for critical resupply.

To meet the question of whether this nation can afford both a strong naval force and improved and modernized land forces to meet our alliance commitments, our answer must be to succeed at both or we shall surely succeed at neither. Our successful strategy at sea directly complements the coalition defense of Europe. It is not a question of either "maritime" or "continental" strategy.

Mr. Bennett: What are your feelings about the recent statement of one defense analyst that, "carriers would be little more than an annoyance to the Soviet Union during a conventional war in Europe?"

Secretary Lehman: I would suggest that the defense analyst you quote understands little of carrier battle groups, the Soviet Union and its empire, or conventional warfare in Europe. However, the Soviets do not suffer such ignorance, which is the principal reason why the peace has been maintained in Europe for more than four decades, the longest in modern history.

The maritime superiority that U.S. and allied naval forces would seek in event of hostilities on the European continent would be vital to our victory on the Central Front, particularly in a protracted conflict. Contrary to the armchair strategists' claims, the Soviet Union would not be impervious to Allied maritime supremacy.

Consider the following "maritime" vulnerabilities the Soviet Union possesses:

° Its lines of communication to its overseas allies and clients -- Cuba, Nicaragua, Libya, Syria, Ethiopia, Angola, Vietnam -- are all vulnerable to naval power, as are the forces and equipment it has prepositioned there.

° Its ability to intimidate and/or invade a host of forward U.S. allies -- Norway, Iceland, Denmark, Northern Germany, Italy, Greece, Turkey, Korea, Japan -- and to attack the U.S. and allied forces stationed there, is dependent on its control of adjacent seas and denial of their use to the U.S. and it allies. Defeat of their Navy would preclude successful Soviet attacks on and then from these areas.

° The Soviet Union has the world's fifth largest -- in number -- and eighth largest -- in tonnage -- merchant fleet. Because of a land transportation network approaching gridlock, most peacetime traffic between the European and Asian portions of the USSR goes via the Suez Canal and the Southern Sea Route through the Red Sea, Indian Ocean, Western Pacific and Sea of Japan. The Soviets have the world's largest fishing fleet, which harvests the world's second largest catch. Seafood accounts for 20% of Soviet protein consumption. Destruction of these fleets will not in and of itself destroy the Soviet Union, but would certainly contribute to the overall allied war effort, reducing food consumption, denying imports, and overtaxing an already inadequate land transportation net. The impact of Britain's Royal Navy on the ability of the Kaiser's Germany, another "continental" power, to wage World War I is instructive in this regard.

° Most important would be the uncertainty faced by the Soviet General Staff because of U.S./Allied maritime superiority. The inherent flexibility of naval power would force the Kremlin to deal with a multiplicity of potential threats from a global rather than solely a European theater perspective. The Soviet military's inability to focus exclusively on a Central European land confrontation remains a central determinant in NATO's ongoing success in deterring Soviet aggression on the continent.

Soviet exercises, doctrine, and configuration of their sea and naval aviation assets prove that they realize the offensive striking power of the carrier battle group.

Unlike the defense analyst cited, the Soviets recognize the aircraft carrier as a force multiplier due to its mobility, flexibility, and sustainability. Air wing composition is inherently flexible, allowing for as many as sixty strike and strike-fighter aircraft per carrrier. Battle forces, comprised of two or more carrier battle groups supported by U.S. and Allied land-based aircraft operating within striking range of Soviet territory pose a significant threat which Kremlin planners must consider in any scenario including hostilities on the Central Front.

Mr. Bennett: Given that dollars for defense are limited, how do you rate the tradeoff of buying carrier battle groups versus Army divisions and Air Force fighter squadrons?

Secretary Lehman: The military force levels required to execute America's overall national security policy are not random numbers generated to satisfy a given level of expenditure. They are not entities to be "traded" back-and-forth for one service's loss or gain. Instead, they are clearly delineated by the forty-three treaties and security arrangements we have with our friends and allies throughout the world. It is these commitments, considered at the same time as our economic dependencies, that lay the basic foundation on which our national military strategy is built.

The overall aim of this strategy is deterrence, a deterrence based on three conditions: 1) maintenance of a high degree of readiness in the active duty armed forces; 2) the forward deployment of U.S. air, sea and land assets; and 3) close cooperation and interoperability with our allies throughout the world.

Our naval recovery program has not been funded at the expense of the other services. Sensible as it might be in its own right, it has been but part of an overall rebuilding of this nation's defenses. Likewise, the proclamation of our maritime national military strategy reflecting the realities of today and the challenges of tomorrow.

Today, the successful application of American military power means the successful coordination of all the services. It also means successful coordination with our allies, particularly in Europe.

Setting overall United States defense priorities is the responsibility of the Secretary of Defense as the executive agent of the President in his role as Commander-in-Chief. His decisions on resource allocation are contained in his annual budget submission for the Department of Defense. It should be noted that all of the Service Secretaries contribute to the formulation of this budget through the deliberations of the Defense Resources Board.

Mr. Bennett: Does the Navy plan to fight simultaneously around the world with 15 carrier battle groups?

Secretary Lehman: How we actually intend to fight is not something that should be decided inside the Beltway. Our national strategy is not a formaula for fighting each ship and deploying each tank in engagements that may take place around the world. That is not the function of the military working within the Pentagon. It can only be the proper function of the theater commander who is given the responsibility to carry out the defense objectives decided by the national command authority.

Rather than micromanaging or second guessing a theater commander, our maritime strategy gives coherence and direction to how we allocate money among competing types of ships, different accounts for spare parts, missile systems, and defense planning. It provides guidelines to aid us in allocating both resources and shortages.

Title 10 charges the Secretary of the Navy with ensuring the highest level of training appropriate to the responsibilities placed upon the Navy. Rather than dictating the number of carriers to be engaged, our maritime strategy provides us with a framework within which to train our forces.

For example, we conduct training exercises with our NATO allies that start off the East Coast of the United States. We constructively "fight" our way across the Atlantic moving north of Great Britain and east of Ireland, terminating the transit in the northern reaches of the Norwegian Sea.

This is effective "real world" training in areas where we would have to operate in event of a confrontation on the Central Front. Exercises such as these are carried out as part of a coherent training operational plan linked to the way the CINCs, the theater commanders, intend to fight a war.

This is not to imply that there is not somewhere a "cookbook" for when and how many aircraft carriers to move, or how to deploy our AAW cruisers or where to position submarines after conflict breaks out. But this "cookbook" should not be so rigid as to attempt to predict an inherently unpredictable future. Regardless, it should certainly never originate with the uniformed or civilian Washington bureaucracy.

Mr Bennett: What is the basis for choosing 15 carrier battle groups as opposed to 14 or 22 or some other number?

Secretary Lehman: I'd like to broaden that question into consideration of how we arrived at our determination of 600 ships as the size fleet this nation needs to meet its global commitments. Contrary to the armchair strategists' claims, this is not a number that has sprung from the brow of some would-be Napoleon of the high seas.

Since 1945, our maritime force planners have found themselves at the mercy of three enduring elements. First is geography. Water covers three quarters of the world; and the United States is an "island continent" washed by the Atlantic and Pacific oceans.

Second are the vital interests of the United States expressed in the web of more than 40 treaty relationships that bind us to mutual defense coalitions around the world. These relationships shape our national security requirements -- together with the energy and commercial dependencies that support our economy in peace and war.

The third element is the Soviet threat. Whatever its original rationale, the Soviet Navy's postwar expansion has created an offense-oriented blue water force, a major element in the Soviet Union's global military reach that supports expanding Soviet influence from Nicaragua to Vietnam to Ethiopia. From the Baltic to the Caribbean to the South China Sea, our ships and men pass within yards of Soviet naval forces every day.

Thus, geography, alliances, and the Soviet threat combine to dictate the actual numbers of ships required to fulfill our commitments in each maritime theater.

There are a total of four theaters or main geographic areas to consider: the Atlantic, the Mediterranean, the Pacific, and Indian Ocean-Persian Gulf. The numbers used are "notional." They illustrate force packages constructed for peacetime tasks now assigned to our naval forces. But they are capable of expansion or contraction, should war break out -- a flexibility characteristic of naval power.

The Atlantic

The large Atlantic theater encompasses the North Atlantic, the Norwegian Sea, the Northern Flank of NATO including the Baltic throat, the South Atlantic, the Caribbean, and the Gulf of Mexico. It includes the coasts of South America and the west coast of Africa, all vital sea-lanes of communications. And it involves the Mediterranean and the Middle East.

The U.S. Navy operates in the Atlantic theater with two fleets, the Sixth and the Second. The Sixth Fleet in the Mediterranean is the principal fighting force of the NATO Southern Europe Command and provides strike, anti-air superiority, anti-submarine, and close air support for the entire Southern Flank of NATO -- a principal makeweight in the balance in the Central Front.

In addition, the Sixth Fleet is the principal naval force that supports our friends and allies in the Middle East. The threat there is significant. The Soviets maintain a fleet in the Black Sea and a deployed squadron in the Mediterranean. In wartime, we expect to see also Soviet naval strike aircraft, aircraft carriers, a formidable number of diesel and nuclear submarines, and a full range of strike cruisers, destroyers, and other smaller combatants.

In wartime, purely U.S. forces in the Sixth Fleet would have to include three or four carrier battle groups, operating to meet NATO commitments. We would also need to deploy a battleship surface action group and two underway replenishment groups. In peacetime, we average over the year one and one-third carrier battle groups deployed in the Mediterranean.

The Second Fleet is the heart of the Atlantic strike fleet for NATO. It is responsible for naval operations in the North Atlantic, the Eastern Atlantic, Iceland, and the Norwegian Sea, the defense of Norway, and the entire Northern Flank including the North Sea and Baltic throat. It must simultaneously accomplish any naval missions required in the Caribbean, where we now face a very large Soviet and Cuban naval presence; in the south Atlantic, where we have vital sea-lanes; and along the West African sea-lanes, where the Soviets now deploy naval forces continuously.

For the Second Fleet, in wartime, we must plan to have four or five carrier battle groups, one battleship surface action group, and three underway replenishment groups.

In peacetime, we generally run higher than this because most of our principal training occurs in the Second Fleet's operating areas.

Today, we have six carrier battle groups cycling in the Second Fleet at one time or another. We have exercises underway with our NATO allies, with our South American and Central American allies, and with other nations, on an ad hoc basic, in every season of the year.

The Pacific

Clearly, our increasing commercial interests and historic security ties in the Pacific impact on our naval planning for the area. If we are to protect our vital interests, we must have forces available to deploy -- not only to the Atlantic theaters and the Sixth and the Second Fleets -- but also to the Pacific simultaneously, to the Seventh and the Third Fleets and the Middle East Force of the Central Command. We cannot abandon one theater in order to deal with the other.

The Seventh Fleet is our forward Western Pacific fleet, which meets our commitments to Japan, Korea, the Philippines, Australia, New Zealand, and Thailand, and in the critical straits of Southeast Asia, as well as the Indian Ocean. In wartime, we would need to deploy five carrier battle groups to the Seventh Fleet, two battleship surface action groups, and four underway replenishment groups. In peacetime, we average over the year the equivalent of one and one-third carrier battle groups in the Western Pacific. That, of course, helps us maintain a peacetime fleetwide operational tempo that provides for at least 50% time in homeport for our people and their families.

We do not have a separate fleet in the critical area of Southwest Asia, the Indian Ocean, and the Persian Gulf, although some have proposed the recreation of the Fifth Fleet for that purpose. In peacetime, we have the Middle East Force of the Central Command and elements of the Seventh Fleet, normally a carrier battle group.

In wartime, we plan for two of the Seventh Fleet carrier battle groups to meet our commitments in the Indian Ocean, Southwest Asia, East Africa, the Persian Gulf area, and Southwest Asia. Notionally, a Seventh Fleet battleship surface action group and one underway replenishment group would also be assigned to operate in these areas.

The Third Fleet has responsiblity for operations off Alaska, the Bering Sea, the Aleutians, the Eastern Pacific, and the Mid-Pacific region. In wartime, there would be considerable overlapping and trading back and forth between the Seventh and Third Fleets. To cover that vast area we must assign two carrier battle groups and one underway replenishment group.

These requirements compel us to deploy a 600 ship Navy centered on fifteen carrier battle groups. In peacetime, we deploy in the same way to the same places we must control in war but at one-third the tempo of operations. This allows a bearable peacetime burden of six-month deployment lengths and 50% time in homeports. Looked at either way, we require the same size fleet to meet peacetime deployments as we do to fight a war. Taken together they add up to the following:

- Fifteen carrier battle groups
- Four battleship surface action groups
- One-hundred attack submarines

- An adequate number of ballistic missile submarines
- Lift for the assault echelons of a Marine Amphibious Force and a Marine Amphibious Brigade

When escort, mine warfare, auxiliary, and replenishment units are considered, about 600 ships emerge from this accounting -- a force that can be described as prudent, reflecting geographic realities, alliance commitments and dependencies, and the Soviet fleet that threatens them. Unless Congress reduces our commitments or the Soviet threat weakens, there is no way to reduce the required size of the U.S. fleet and still carry out the missions assigned to the United States Navy.

NAVY PROCUREMENT PLANNING BALANCE

Mr. Bennett: How does the Navy's current plan for ship and aircraft procurement meld with the three Navy functions of sea control, force projection, and strategic sealift?

- Specifically, is any one function in need of greater resources over the next few years?
- As the Defense Budget continues to be squeezed is the strategic sealift function likely to suffer in favor of more traditional roles and missions?

Secretary Lehman: The Navy's current plan for ship and aircraft procurement coherently melds the requirements of the Navy's functions of sea control, force projection and strategic sealift into a balanced seagoing force. The forces required for sea control and power projection are embodied in the 600-ship Navy goal announced 5 years ago. The force levels required for our sealift goals were likewise established at that time. We have not deviated from those goals, and thanks to wise congressional actions and strong support, they all are being met. We will have 15 carrier battle groups, 14 active and 2 reserve carrier air wings, 100 attack submarines, amphibious lift capability for the assault echelons of a Marine Amphibious Force and a Marine Amphibious Brigade, and the other forces of the 600-ship Navy necessary for sea control and power projection. We will have the 13 Maritime Prepositioning Ships, 8 Fast Sealift ships and the other sealift forces necessary to quickly load, transport, and offload U. S. military equipment overseas. Indeed, the last four years' budgets have included significantly more money for strategic sealift than all of the previous budgets going back to World War II put together. As long as this Congress continues to support the balanced 600-ship Navy goals and our goals for sealift, no one function will be in need of greater resources over the next few years.

OPERATIONS AND SUPPORT COSTS

Currently the Navy's readiness of its existing fleet is improving. However, there are shortfalls in items needed for sustainability such as missiles, conventional ammunition and spares. The Navy plans to obtain more of these items. Maintaining readiness of its existing fleet as well as the new ships added to the fleet and providing items for sustainability for a larger fleet will increase operating and support costs. At the same time, the Navy will have to repair and overhaul a greater number of its ships, further increasing operations and support costs.

Mr. Bennett: Taking into account all costs i.e. for shipbuilding, sustainability, and maintaining a combat ready fleet, what will be the total Navy cost in future years in terms of their relationship to the Defense Budget? In short please explain how all this is affordable in future budget years? What are the alternatives being considered?

Secretary Lehman: The total Navy cost in future years is laid out as an integral part of the Department of Defense budget presented each January to the Congress. The 600-ship Navy is already under construction and fully funded. The sustaining rate for the 600-ship Navy is an average of 20 ships a year in new construction, requiring 3% annual real budget growth. A future of zero-growth budgets like we experienced for FY 1986 would mean we will be unable to sustain a 600-ship Navy - or for that matter, a capable defense. None of the alternatives available to us in a zero-growth budget regime will yield an adequate defense posture. We, in the Navy, are doing our part to drive costs down (e.g. Aegis cruisers that were projected to cost as much as $1.4 billion each now cost $900 million; the flyaway price of an F/A-18 strike fighter is 32% less in FY 85 than it was in 1982). We shall continue to do even more.

Mr. Bennett: What are Navy's projected O&S costs in future years to maintain the ever increasing fleet and provide for sustainability?

Secretary Lehman: We project that support of the 600 ship Navy can be achieved within the current DOD five year plan.

LONG RANGE PLANNING FOR AIRCRAFT CARRIERS

Mr. Bennett: If the Navy is conducting long range studies, explain what these indicate about the role of the aircraft carrier in the first half of the next century. Do they have a viable role in this time period, and how many might we need in the Fleet?

Secretary Lehman: Without exception, every study, analysis, wargame, or exercise we have undertaken validates a requirement for high-performance tactical sea-based aircraft in the future. These aircraft, and the multi-capable carriers they operate from, will be required for the entire range of future sea control and power projection contingencies, across the foreseeable spectrum of future war from naval presence through nuclear war. We project a requirement for a minimum of 15 large-deck carriers well into the next century. Accordingly, we will soon be requesting funding for replacement carriers for MIDWAY and our other current aging decks in the 1990s.

T-AGOS MISSION

Mr. Bennett: What options exist to obtain the highest quality SWATH design, either from a domestic design source or from acquisition of a proven overseas design?

Secretary Lehman: To obtain the highest quality SWATH design meeting T-AGOS mission requirements, COMNAVSEASYSCOM will conduct a combined Preliminary and Contract Design by a co-located design team with shipbuilder involvement throughout the design process. A Commerce Business Daily notice will solicit participation by industry.

We consider the design and construction of a SWATH T-AGOS to be low risk. The Japanese constructed a SWATH in the size range of a T-AGOS, about 3500 tons, which is performing extemely well for their oceanographic community. The U.S. Navy has conducted analytical studies and model tests on large SWATH vessels for ten years and operated a 230 ton SWATH vessel for over a decade.

SWATH COST ESTIMATE

Mr. Bennett: Provide the most current cost estimate for a SWATH design T-AGOS ship.

Secretary Lehman: The SWATH T-AGOS will be a design-to-cost ship. Its cost will be within T-AGOS program funds budgeted previously or requested through FY 1986.

Mr. BENNETT. Now we will turn to Mr. Hunter.

Mr. HUNTER. Thank you, Mr. Chairman.

I just have one last brief question. The House just passed a requirement that I offered on the floor in the defense authorization bill that will require the President to look at the possibility of doing some other things with the Poseidon submarine and I believe it is the *Sam Rayburn* that is to be dismantled when we bump against the SALT limits. Among those things are transfer to the United Kingdom, which may have real problems under SALT also; changing to a cruise missile submarine or changing to a regular attack submarine, or of course, using it for a trainer, which I think is one thing that is being proposed right now.

I would suggest, Mr. Secretary, that this will give an opportunity for the Navy to perhaps review again, or cause the administration to review again the feasibility of perhaps dismantling something else and keeping Poseidon in the ballistic missile submarine force.

I understand that we could alternatively, perhaps, dismantle some missiles, some of the ICBM's and keep within the SALT limits, so I would ask you to take a very careful look at that, and realizing that the United Kingdom is probably not very happy about taking on a Poseidon, I think they have their plan to go ahead with the construction of Trident. I think that that should at least be examined.

Secretary LEHMAN. Yes, sir.

Mr. BENNETT. I believe we can now conclude, but I want to say to you that we are very, very grateful in this committee for you coming here. You have been here for a couple of hours and have made a very fine presentation. It is obvious, of course, that some things in the nature of this discussion have to be done secretly and the next hearing we will have will be one that deals more with strategy and tactics and things like that; perhaps a little more final with regard to numbers, because the numbers are a function of a lot of variables like time, like place, things like that, and those we would go into more in the next hearing.

We are very deeply grateful for everybody being here this morning. You made a fine presentation. Thank you.

Secretary LEHMAN. Thank you, Mr. Chairman.

Mr. BENNETT. The committee will meet for a briefing on the stockpile at 3:30 this afternoon in this same room.

[Whereupon, at 12:30 p.m., the subcommittee was adjourned, to reconvene subject to the call of the Chair.]

OPERATIONAL ASPECTS OF THE GLOBAL MARITIME STRATEGY

House of Representatives,
Committee on Armed Services,
Seapower and Strategic and
Critical Materials Subcommittee,
Washington, DC, Thursday, September 5, 1985.

The subcommittee met, pursuant to call, at 10:20 a.m., in room 2212, Rayburn House Office Building, Hon. Charles E. Bennett (chairman of the subcommittee) presiding.

STATEMENT OF HON. CHARLES E. BENNETT, A REPRESENTATIVE FROM FLORIDA, CHAIRMAN, SEAPOWER AND STRATEGIC AND CRITICAL MATERIALS SUBCOMMITTEE

Mr. Bennett. The subcommittee will come to order.

This morning the subcommittee will receive a briefing on the relationship between the Navy's maritime strategy, its shipbuilding programs, and the actual plans for conducting wartime operations at sea.

This session, together with this afternoon's briefing that will deal specifically with submarine strategy, forms the second of the committee's four hearings on the size and composition of the U.S. fleet.

Today's sessions should assist the committee in learning how the maritime strategy has been translated into current naval plans and the shortfalls those plans reveal. Both briefings have been closed for national security purposes.

Providing the briefing this morning is Vice Adm. James Lyons, Jr., who until recently was the Deputy Chief of Naval Operations for Plans, Policy, and Operations. Vice Admiral Lyons has been nominated for appointment to the grade of admiral and assignment as Commander-in-Chief, U.S. Pacific Fleet.

We are very happy to have you here. We know of your fine reputation and your performance.

Mr. Spence, would you like to make a statement?

Mr. Spence. No, sir. I'd just like to welcome Admiral Lyons.

Admiral Lyons. Thank you, sir.

Mr. Bennett. All right, sir, you may proceed.

STATEMENT OF VICE ADM. JAMES A. LYONS, JR., PROSPECTIVE COMMANDER IN CHIEF, U.S. PACIFIC FLEET

Admiral Lyons. Well, thank you very much, Mr. Chairman. It is a pleasure to be before your committee again, and I welcome the opportunity to discuss our maritime strategy and how I see it as an operational commander both in terms of when I had command of the 2d Fleet and certainly from the perspective of a new fleet CINC.

I do have a statement which I would like to submit for the record.

Mr. BENNETT. Without objection, it is so entered in here.

[The prepared statement of Admiral Lyons is classified and is retained in the subcommittee files.]

Mr. BENNETT. I would like to say one of the things that stimulated these briefings is some criticism or inquiry on the part of some people as to whether or not we needed a 600-ship Navy or whether we could afford one or man one. So any observations you make that have any pertinence to that are particularly important. Because underlying this is whether in fact we do need a 600-ship Navy and whether we can finance it and man it. That is one of the reasons why these hearings are taking place. So just bear that in mind as you go along.

I realize there may not be any specific thing that relates to it, but it certainly is important that we look at how large a Navy we should have, whether we can afford it and what the functions are to be for them.

Admiral LYONS. Yes, sir.

What I would like to do this morning, is to make a few remarks, and then quickly go through a framework of vu-graphs just to set the stage and cover both highlights of the maritime strategy, and some of its operational aspects. Then we can go into a more detailed discussion on any element that you or the other committee members would like to review.

First, Mr. Chairman, let me say that the maritime strategy is a coalition strategy. It is not a Navy war plan. It is totally flexible. It is a framework in which to support our unified commanders.

There are no time lines to the strategy. You have heard a lot of talk—on D-day we're going to have four carriers here and three carriers there. Let me say at the outset, the U.S. Navy is not going anywhere unless directed by our political masters, by the national command authority. This is not an independent strategy; it is derived from our national military strategy and can be modified, changed as dictated by the national command authority, the Secretary of Defense, the unified commanders. The Navy exists to support the national strategy and to carry out our national objectives.

And it is our national objectives and our various treaties and alliances which dictate to a large extent the way we are positioned today. Now I would like to just briefly go through some Vu-Graphs.

This slide [deleted] I know you are well familiar with.

Mr. SISISKY. Excuse me.

Are we in closed session now, Mr. Chairman?

Mr. BENNETT. Yes, we are.

Mr. SISISKY. OK.

Admiral LYONS. I sure hope so.

It depicts how we derive the maritime strategy, and it is one that I know you have seen many times, and I don't think we need to spend a lot of time on this.

Mr. BENNETT. If that is going to be the size of that print all the time, I wonder if somebody could bring it 3 feet forward, so I can read it.

Admiral LYONS. Yes, well, I am sorry——

Mr. BENNETT. It is not your fault I can't read it. But I can't read it where it is.

Oh, I see, you can do that?

Admiral LYONS. Yes. Does that blow it up any better for you?

Mr. BENNETT. I can read it now. Can you read it on your side over there? Everybody else can read it anyway.

Admiral LYONS. Our maritime strategy, as I mentioned, is a global strategy, and it is executed by the unified commanders, by the theater commanders as depicted on this Vu-Graph.

Our major naval commitments during 1984, as you can see, were interspersed throughout the globe. And why are we there? We are there to meet out treaty commitments to NATO in the European Theater. Certainly all of this is to achieve the primary objective to ensure the integrity of the continental United States, and to reinforce and to assure that our allies feel the commitments that we have made in our treaties, and as you will see we have over 40-some treaties throughout the world.

Mr. BENNETT. Can any of our ships be prevented going through the Panama Canal by being too large?

Admiral LYONS. Our large carriers cannot get through the canal.

Mr. BENNETT. Well, how many of them? How many ships of the fleet can't, including carriers?

Admiral LYONS. We can't get our carriers——

Mr. BENNETT. Any of our carriers?

Admiral LYONS. None of our carriers can pass through. In fact, regarding our LHA's, Mr. Chairman, when we try to bring an LHA through, we have to remove part of the sponsons. Because as the ship sets down in the lock, it sets down on the sides of the canal.

In fact, when battleships go through, we actually have to remove the scuppers. That is how much clearance there is when we bring the battleship through—6 inches.

There is that restriction. And it is a very good point you bring up because——

Mr. BENNETT. Well, in order to look at the strategy you have to know where the ships are and how they can move. And you're telling me that the carriers can't move through the Panama Canal; they have to go around the Cape. Right?

Admiral LYONS. Exactly. And you are talking racing at 20 knots. That is 7 to 10 days you have added on to a transit, and that is a key element. Certainly we have seen that vividly displayed when the Suez Canal was closed, if you recall back to that time. We couldn't send ships through the Suez Canal. When we had to reinforce the Indian Ocean, we had to go all the way around Africa. Certainly from the Atlantic. And, of course, our only guaranteed access to the Indian Ocean is through the Pacific, as it remains today, without the political constraints and the other elements that can be thrown up as obstacles coming the other way.

Now what this represents—I hope you can see this. [Slide deleted.]

Mr. BENNETT. Yes, sir. Well, I can see the map.

Admiral LYONS. It is a snapshot. It is a snapshot of our operations——

Mr. BENNETT. Well, let me repeat what I said before. Can't somebody just drag that 3 or 4 feet forward a little bit? Because I am not reading the words, although I think that they are geographical locations. I know where the locations are. Is that too big a deal, to move it forward?

Admiral LYONS. There, you will have to bring that forward. That is fine.

That is OK. I will get up if I have to.

Mr. BENNETT. OK, fine. Now I can read it.

Admiral LYONS. How is that? You have got to focus that a little better.

That is it. It all looks clear now.

[Deleted.]

The operations that are depicted are symbolic and are directly related to the treaty commitments that we have today. And let me just start. UNITAS is now in its 26th consecutive year of operations with the force. UNITAS underscores our commitment to the Rio Pact, and it reassure our allies in the area by raising their proficiency.

We have purposes when we do these exercises, which I will get to in a little bit.

In the Atlantic, you see the [deleted] battle groups. They are in a major exercise [deleted] with our allies and the Striking Fleet, Atlantic, which I previously commanded. [Deleted.]

I always said when I was the 2d Fleet commander, that obviously the Soviets observe these exercises, as they are today. [Deleted.]

I welcomed their participation for two reasons. First of all, all their services are free. We don't have to pay for them. It also adds that extra dimension to the exercise, scenario, because they are operating just the way we would expect them to operate in a contingency or wartime situation.

When we perform with a level of proficiency, we have a message to send the Soviets. That message is "You know it just might be too hard."

[Deleted.] At sea, we control the air, and that is what those carriers are about.

We don't do it alone, which I will address a little bit later. The same applies to the submarine threat. [Deleted.] I will display this for you in an upcoming Vu-Graph.

Mr. BENNETT. Do you know if anybody has ever given any consideration to building a smaller carrier that could go through the Panama Canal? Because I think somebody on the floor of the House might ask the question.

Admiral LYONS. Well, you know we had a great debate some years ago. We had a great debate a number of years ago that—you know, why don't you build smaller carriers and so on? And of course we used to have what we called the [deleted.]

Now that is going back a number of years. [Deleted].

I will address that later.

"Violent Peace"—and I know you have seen this vugraph before. The Navy-Marine team has been involved in over 200 crisis since World War II, as directed by our National Command Authority. Certainly we would have wished that none of them existed, but that is not the nature of the world.

The point to get from this is it is the Navy-Marine Corps team which provides the National Command Authority the political flexibility that can be used at any given instance, certainly at the front end of a crisis.

I call this my measles chart. It vividly displays unpreparedness. These are the number of ships that were sunk in the first several months of World War II right off the east coast of the United States and in the Caribbean. We just can't afford that type of unpreparedness again.

And let me hasten to add, with the support from this committee and from the rest of Congress, I don't see us falling into that trap again.

Mr. CARNEY. Admiral, on that, obviously you don't even have to count the dots, but there are enough dots in a 6-month timeframe back in 1942 that you would probably wipe out—if you could get the same kills today—you could wipe out the entire merchant marine fleet.

Admiral LYONS. That might be the case if we were standing still, and if we did not have the capabilities that have been provided to the U.S. Navy through the support that we have received from Congress. I don't anticipate us being put into that situation again.

Mr. CARNEY. Well, would you dare say that we have one-tenth the number of ships available to you today in the merchant marine than you did then.

Admiral LYONS. Oh, that is probably a very good percentage that you leaped on because, as you know, we had just over 5,000 ships available when we started.

All right, in the U.S. merchant marine today, you know, we are at——

Mr. CARNEY. 452 ships.

Admiral LYONS. Exactly. But we also have flags of convenience. We have arrangements with allies which would provide additional ships.

It is clear we can't afford a war of attrition against our merchant marine that—something we were able to sustain in World War II because we don't have a sufficient base.

How are we going to cope with that? I am going to tell you some of the ways we plan to do that as we go along here.

Mr. SISISKY. Mr. Chairman.

Mr. BENNETT. Yes, sir.

Mr. SISISKY. While he is on that subject—and I don't know if you admitted to even talking about it just now——

[Deleted.]

Admiral LYONS. Recently?

Mr. SISISKY. Yes, sir.

Admiral LYONS. Yes. They conducted a very significant exercise in June and July of this year [deleted].

This was clearly, as we interpret that phase of the exercise and I want to emphasize that [deleted].

Mr. SCHAFER. I think, Mr. Sisisky, that the briefing this afternoon is going to address that. Then we'll actually have a vugraph of it.

Mr. BATEMAN. Mr. Chairman.

Mr. BENNETT. Yes, sir?

Mr. **Bateman**. Not to prolong this discussion if it is something to be picked up on in greater length this afternoon, but I have some concerns that suppose that [deleted]. What does that do to the ball game?

Admiral **Lyons**. [Deleted.]

It is not just Soviets versus United States. In the type of scenario you are discussing we would expect certain allies to be involved. The Norwegian Sea looked at, let's say, with somewhat of a myopic view. I view the Norwegian Sea as a NATO lake, not a Soviet lake. After all, it is bordered on three sides by NATO.

[Deleted.]

It is not a simple evolution. The mistake that sometimes is made is to take a peacetime exercise in which we allow the Soviets to do certain things; [deleted].

So what you don't want to get caught in is [deleted]. There are concepts that I would employ as the Fleet Commander [deleted]. And I know you haven't been briefed on that yet but these are ways that we think we can manage that Soviet threat. [Deleted.]

Again, this is just a diagram, which you have seen, of how we develop the maritime strategy from our national policy and conduct our fleet operations which enhance deterrence. We take the lessons we learn from exercises and crises and factor those into our force development and our research and development programs, and that impacts then on our POM and budget.

We have talked about this, I think, a number of times. The main objective is deterrence. And if deterrence fails, then we have to have sufficient recognized war-fighting capability to be able to terminate the war on terms favorable to us and our allies.

The main point that I would ask you to look at on this vugraph is that the maritime strategy is not just a Navy strategy. We integrate all our sister services, the Reserves, the Coast Guard, and allies. Supporting this are some of the interservice memorandums of agreement that we have signed with our sister services, the USAF in particular; and the Coast Guard.

Now this is Northern Wedding 1982. Are you going to be able to hear me if I go to the screen? I mentioned to you earlier how we can [deleted].

Mr. **Bennett**. Why do you call it Northern Wedding 1982?

Admiral **Lyons**. It is just the name that we gave the exercise.

Mr. **Bennett**. Oh, I see. This is the name of an exercise which took place.

Admiral **Lyons**. Yes, sir, it took place during this timeframe.

Mr. **Bennett**. I see. OK.

Admiral **Lyons**. When I had command of the 2d Fleet and Striking Fleet, Atlantic.

We did some innovative things which were not lost on our Soviet friends. This shows how you can put it all together.

[Deleted.]

And it is the same way today. We had a number of [deleted] that participated in this exercise.

[Deleted.]

Also included in this exercise, and I had done this the previous year any time I took a carrier battle group to sea, we had AWACS in direct and indirect support. I also had Air Force tankers, KC-10's and KC-135's working with us.

The other new dimension in this exercise was the movement of eight Air Force F-15's up to Bodo, Norway. I had Air Force F-4's and Reserve F-4's operating out of Iceland.

[Deleted.]

He will never have the right correlation of forces. And you are going to see this again in the Pacific.

I know you have seen this vugraph before. It shows the spectrum of violence for applying maritime forces. The new element on this vugraph deleted is state-sponsored terrorism. It is one which the Navy and Marine Corps uniquely qualified to combat when directed by the National Command Authority.

It is a new element which certainly was not on that spectrum of conflict before. It is not just a U.S. problem. It is global problem which will require a very dedicated, sophisticated, intelligence network with our allies and other friends cooperating in a way that is new.

There are two things I want to discuss about this slide [deleted].

I know you are all familiar with our various treaties and alliances. This just gives you a snapshot of the major ones.

You will note the number of ones we have in the Pacific.

I put this up here to say, to answer the question: Is a 600-ship Navy enough?

Mr. Dyson. Mr. Chairman, could I ask a question?

Mr. Bennett. Sure.

Mr. Dyson. I understand very shortly you are going to get another star, and we congratulate you for that. And you are going to be taking Admiral Crowe's place out in the Pacific.

Admiral Lyons. Admiral Foley's place.

Mr. Dyson. Oh, excuse me.

Admiral Lyons. Right. Well, I would be glad to take Admiral Crowe's place, too.

Mr. Dyson. I am sure a lot of people would.

We were in Hawaii last year, the Armed Services Committee, on a trip to the Far East, and a statement was made by the Navy while we were there and it left a lot of us, I think, a little uncomfortable. And it was this.

[Deleted.]

Since that time, and it has been almost a year now, I have not found anybody yet who has said that it is not absolutely wrong.

Admiral Lyons. [Deleted.]

Mr. Dyson. May I interrupt there?

Admiral Lyons. Right.

Mr. Dyson. I guess, then what my question would be, [deleted.]

Admiral Lyons. [Deleted.]

Mr. Dyson. [Deleted.]

Admiral Lyons. [Deleted.]

Mr. Dyson. Thank you.

Mr. Carney. Admiral, if I may. Along those lines, before you put a slide up—and it is not necessary to go back to it—where you showed all the port calls you made.

Admiral Lyons. Right.

Mr. Carney. And that is impressive to see all the dots. [Deleted.]

Admiral LYONS. Well, it is regretted that the New Zealanders took the position that they did, certainly on our ship visits. You are quite right. [Deleted.]

And I don't have to tell you I didn't have to go the New Zealand. You just had to read the Washington Post.

Admiral LYONS. Right.

Mr. CARNEY. Now we have a problem there.

Admiral LYONS. At the same time, and I am going to get to that, nobody should take comfort. The less access we have, the more force posture and the more force structure it will require to support the forces that we have deployed to meet our national commitments. That is the point that I really want to make on this slide.

At the same time, your point, which is a very good one, is one we take very seriously.

[Deleted.]

Our policy remains the same: neither to confirm nor deny the presence or absence of nuclear weapons.

So this is worrisome. And you are quite correct——

Mr. BENNETT. [Deleted.]

Mr. CARNEY. [Deleted.]

[The following information was received for the record:]

USN ACCESS TO ROTA PORT FACILITIES

The USN has not reduced force levels, facilities, or operations at Naval Base Rota. There is no anticipated loss of usage or facilities at Rota.

The Spanish Navy is planning on greatly increasing their usage of Rota, and this will cause heavier usage of facilities, but will not result in reduced USN presence or slow our operating tempo.

Admiral LYONS. Well, you just covered it.

Mr. CARNEY. Well, there is a heck of a lot more than three.

Admiral LYONS. [Deleted.]

Mr. DYSON. Will the gentleman from New York yield a minute?

Mr. CARNEY. Sure.

Mr. DYSON. [Deleted.]

Admiral LYONS. You are probably correct. And as I said, the primary focus is on the [deleted].

Mr. CARNEY. I didn't mean to get into specifics. Maybe I would just like to make a statement at this time, if the chairman would allow. You know, I just think that there might be a little bit too much optimism out of this presentation.

Admiral LYONS. [Deleted.]

Mr. CARNEY. Yes; but when you put a slide up and you say you got the *Eisenhower* battle group, and you got two ships down there, you are misleading this Congressman.

Admiral LYONS. No; you misinterpreted the vugraph. [Deleted.]

Mr. CARNEY. I think I am on your side, Admiral. I am trying to help you. You know, I am not sure you are not too optimistic about things.

Admiral LYONS. Well, I consider my observations realistic.

Mr. BENNETT. Before we go any further, we will have to go to a vote.

Since we have got a quorum here to have a vote, why don't we put some of our things in the future at least in a [deleted] meeting while we have got a quorum.

Mr. **Schafer**. Well, we don't really have a hearing. The only one that potentially——

Mr. **Bennett**. I will be glad to call a hearing.

Mr. **Schafer**. I am sorry. This afternoon is a briefing and so you don't need a vote for that. On Tuesday is the Secretary of the Navy, and it was my understanding that that was going to be an open hearing, and I have not had any indications of a need to close that.

Mr. **Bennett**. Well, why not do it when we have a quorum? Mr. Spence, if you will move that we have this hearing and for 5 days have the right to call it? Then I won't have to worry about it in the future.

Mr. **Schafer**. The motion, Mr. Chairman, is for 5 subsequent days, and so if you were to vote today and not to close the next meeting, which is a hearing rather than a briefing, the vote will have been for naught.

Now, if you want a motion to give you authority——

Mr. **Bennett**. Well, the Secretary will be here when?

Mr. **Schafer**. On Tuesday.

Mr. **Bennett**. Is that 5 days from now?

Mr. **Schafer**. No; it is subsequent days of hearings. And so the authority, if you vote today for——

Mr. **Bennett**. Well, I tell you what I am going to do. I am not going to argue about it.

Mr. Spence, if you will make the motion we will vote. Why, when you have got a quorum, throw it away?

Mr. **Spence**. I move the Chair be authorized to close the meeting for today and 5 consecutive days of hearings for the purpose of receiving national security information.

Mr. **Bennett**. It's been seconded.

Mr. **Schafer**. Mr. Bennett.

Mr. **Bennett**. Aye.

Mr. **Schafer**. Mr. Spence.

Mr. **Spence**. Aye.

Mr. **Schafer**. Mr. Foglietta.

[No response.]

Mr. **Schafer**. Mr. Hartnett.

[No response.]

Mr. **Schafer**. Mr. Dyson.

Mr. **Dyson**. Aye.

Mr. **Schafer**. Mr. Hunter.

[No response.]

Mr. **Schafer**. Mrs. Lloyd.

[No response.]

Mr. **Schafer**. Mr. Carney.

Mr. **Carney**. Aye.

Mr. **Schafer**. Mr. Sisisky.

Mr. **Sisisky**. Aye.

Mr. **Schafer**. Mr. Bateman.

Mr. **Bateman**. Aye.

Mr. **Schafer**. Mr. Ortiz.

Mr. **Ortiz**. Aye.

Mr. **Schafer**. Mr. Blaz.

Mr. **Blaz**. Aye.

Mr. **Schafer**. Mr. Bustamante.

[No response.]

Mr. **Schafer**. Mr. Price.

[No response.]

Mr. **Schafer**. That is eight ayes, Mr. Chairman.

Mr. **Bennett**. OK, we have it.

We will now go vote and come back.

[Recess.]

Mr. **Bennett**. We will come back to order.

I would like to announce that the meeting this afternoon will in fact be a hearing, as distinguished from a briefing. That puts it on a little bit higher level and makes it better in every respect.

It will be closed, however. You will scarcely notice the difference, but it will be a hearing.

Mr. **Sisisky**. This is a briefing, so this is a low scale; is that right? [Laughter.]

Mr. **Bennett**. Well, so there won't be any mystery about this at all, a number of very important people have repeatedly said in the press that there hasn't been enough consideration given by Congress to look into the 600-ship Navy. This seems to me to be a time bomb waiting out there for somebody politically to decide that there is going to be a crash program by somebody other than this committee looking into whether we should have a 600-ship Navy.

I have no objection to somebody else looking into it, but I don't want this committee to be in the position, real or assumed, that we are just brushing everything under the carpet and we are not really seriously looking into the 600-ship Navy. We have had thousands of pages of testimony on the 600-ship Navy. Every time we authorize, every year we look into this question. So we have had it, but it has been repeatedly said.

And a hearing has a stronger impetus so far as the public is concerned than does a briefing. And the reason why I had a briefing this morning was frankly we didn't think we were going to have a quorum. Anyway my purpose is to elevate the meeting this afternoon to a hearing for the purpose of having as many hearings as we can have. Because they are observed by the public as being a little more serious than a briefing. Whether there is any soundness to that or not I don't know.

But I am serious about these hearings. These hearings are designed to ask whether we have made a mistake or whether we are making mistakes with regard to looking at a 600-ship Navy. And of course, you know, there is no mysticism; it could be 499, or 599, or it could be 612, or something. There is no real mysticism about a 600-ship Navy, but it is the goal we set.

And I would like to say, you know, it is a goal we have met. There are a hell of a lot of the defense objectives we have in this country we have not met, and the 600-ship Navy we have met. Why would we want to foul up our one success. I don't understand why we would want to say: Here is one thing we have made a success on, so let us see if we ought to have done it or not. That is kind of dumb I think.

I don't understand the philosophy that lies behind it, but I don't want this committee to be in a position of having swept under the carpet looking at whether or not we should have a 600-ship Navy.

Because it has been repeatedly said, and I can just see it coming if we don't do something about it. If we don't have hearings of this magnitude, and prominence, and thought, I can see it coming where somebody is going to say, well, after all these warnings nobody even looked at it.

And so we are looking at it. And this is not an artificial thing. It is a real thing because something that is not true has become common wisdom; that is, that we have been sloppy about approaching whether or not we should have a 600-ship Navy. That is not a truth but it is becoming common wisdom, and having hearings like this sets that aside.

And so we will now go on with this particular briefing which will lead to a hearing this afternoon.

Mr. **Sisisky**. Well, let's elevate it to a hearing right now.

Mr. **Bennett**. Well, I have elevated this afternoon's. As of this afternoon's, it will be elevated to a hearing.

Well, I guess we could elevate it to a hearing now, couldn't we?

Well, we could elevate it to a hearing now, so it will be elevated. Right now it will be elevated to a hearing.

Admiral **Lyons**. I feel much better about that.

Mr. **Bennett**. You will never sparkle more.

Admiral **Lyons**. All right, let's see if I can get through this vugraph here, which I think really gets at the point Congressman Carney is making to a certain extent.

You know, as I look at—you know we have our Southwest Asia strategy and our Indian Ocean commitments. Access is a key element of those commitments. We only have one guaranteed access to the Indian Ocean. It is through the Pacific. It all can be stopped the other way by political judgments, denial of access, closure of the Suez Canal, and so on.

But when we are carrying out our treaty commitments, it gets at the heart, I think, Mr. Chairman, of the 600-ship Navy. Because as I pointed out in my statement earlier this morning, I said that ours is a coalition strategy. We count on every one of those allied ships. [Deleted.]

We have another role to play. If they are not filling those, somebody has to or we are going to sustain greater losses.

That is a key element in the maritime strategy.

Mr. **Bateman**. Mr. Chairman.

Mr. **Bennett**. Yes, sir.

Mr. **Bateman**. [Deleted.]

I want to cover a bit of what the Soviets are doing. And I know the committee is well familiar with the global reach of the Soviets as depicted on this vugraph.

This is what the Soviet fleet looks like in a global sense today, and it continues to expand.

To more specifically focus on the Pacific Fleet, which happens to be the largest Soviet fleet today, look at the expansion that has taken place in the last 25 years.

Mr. **Carney**. [Deleted.]

Admiral **Lyons**. That is correct.

Mr. **Carney**. Thank you.

Mr. **Bateman**. [Deleted.]

Here is another *Victor*.

Here is an *Oscar*-class submarine, which is very effective. [Deleted.]

Here is a new [deleted] submarine. [Deleted.]

Then of course, this is their largest ballistic missile submarine, the *Typhoon*. [Deleted.]

All I wanted to show you here, from a Pacific standpoint, is the increase in Soviet operations over time, and how their operations are becoming more sophisticated, and that they are conducting more out of area operations.

[Deleted.]

And I mentioned earlier we monitor Soviet operations and exercises, and thus learn much about what they are planning to do. [Deleted.]

We are not surprised by these operations. Also, we learn a lot from them as well.

Congressman Bateman, [deleted].

So the Soviets are expanding their operations in a dramatic way. [Deleted.]

Mr. **Bennett**. Who has troops in Mongolia?

Admiral **Lyons**. The Soviets.

Mr. **Bennett**. Is that one of the Soviet Socialist Republics?

Admiral **Lyons**. It is called the People's Republic of Mongolia, but is dominated by the Soviets.

Mr. **Sisisky**. Explain that last statement you made. [Deleted.]

Admiral **Lyons**. [Deleted.]

Mr. **Sisisky**. [Deleted.]

Mr. **Bennett**. What is the government of those islands?

Admiral **Lyons**. Pardon me?

Mr. **Bennett**. What is the government of those islands? Is that an independent nation?

Admiral **Lyons**. Yes. Sir.

Mr. **Bennett**. Named what?

Admiral **Lyons**. Kiribati. It is in the Micronesia chain, but it is an independent nation.

Mr. **Bennett**. Is it in the United Nations?

Admiral **Lyons**. Yes; and I can provide you more about them. We have several different arrangements down there. Many of these island nations received their independence in the last, say 5 to 15 years, and I would be glad to provide any more information you would like on that for the record.

[The following information was received for the record:]

THE REPUBLIC OF KIRIBATI

Kiribati consists of a cluster of thirty-three Micronesian islands comprised of Banaba, the Gilbert Islands, the Line Islands, and the Phoenix Islands. The Republic of Kiribati achieved independence on 12 July 1979 and is a member of the United Nations.

In fact, let us go back to that a second, as you can see, there is Kiribati.

[Deleted.]

So they require an air defense capability. They can't revert just to a P-3 and SSN force and meet their obligations.

Mr. **Bennett**. Well, suppose you are a Russian admiral briefing a Russian committee, if they have one, and you had a diagram like that showing NATO or the United States, how would it look superimposed on top of what you have? Wouldn't we both be claiming the same land for our border for the other people?

Admiral LYONS. There is one difference. We, as part of our national requirements, maintain a carrier battle groups in 7th Fleet. When we move those carrier battle groups, we bring their air superiority.

Mr. BENNETT. Where is Diego Garcia?

Admiral LYONS. Diego Garcia is there.

Mr. BENNETT. It is in the midst of all that jazz, isn't it?

Admiral LYONS. Yes, it is right about here.

Mr. BENNETT. So if you had those lines drawn for NATO of United States, we would both claim the other side had a tremendous force there, wouldn't we?

Admiral LYONS. Well, we would——

Mr. BENNETT. I am trying to get it in perspective. When I look at this map, you have sort of made me feel like, ye gods, we have lost all that part of the world. But the Russian admiral would be telling the Russian committee that they have lost it, would they or not?

Admiral LYONS. Well, you can see what their objectives are. [Deleted.]

Now does that mean——

Mr. BENNETT. Do we have enough force to reckon with that?

Admiral LYONS. I think we do. I think the carrier battle group can manage to counter that threat as it exists today.

Mr. CARNEY. The significant thing there, though, is those lines that you show are all land-based forces.

Admiral LYONS. That is correct.

Mr. CARNEY. And we don't have that luxury.

Admiral LYONS. You are exactly correct.

Mr. BENNETT. Well, that is one thing I wanted to ask you about.

Mr. CARNEY. For us to maintain air superiority, we have to do it in the ocean.

Mr. BENNETT. That is one thing I wanted to ask you about.

[Deleted.]

Admiral LYONS. It is very demanding on our people; that carrier battle group is operating at a 20-percent higher operational tempo than during the Vietnam war. When that carrier group deploys, it is underway 85 percent of the time. That is a tremendous amount of time considering that we are not even at war.

So we are required to be in an area to be able to respond to any national tasking.

Mr. CARNEY. You know, I don't know if this might be significant or not, but having had the opportunity to go out on some of your vessels and talk to the sailors, the biggest thing on their minds is [deleted].

And we are pushing those troops to an enormous degree because of our requirement to stay out on the oceans for as long as we have to.

Admiral LYONS. Right.

Mr. CARNEY. I see that as being a problem down the line in recruitment, and retention, and everything else. So, you know, that is why I kept hammering at those facilities where they—where we are not just servicing materials and ships, we are dealing with people as well. And I look to that as an alarming situation.

Mr. **Bateman**. Mr. Chairman.

Mr. **Bennett**. Yes, sir.

Mr. **Bateman**. Admiral, would you put into the equation how it changes with the Soviets building and putting on line some time in the future a large-deck aircraft carrier of their own?

Admiral **Lyons**. Yes, sir.

Mr. **Bateman**. How does that change the equation? Or how will it change it?

Admiral **Lyons**. [Deleted.]

We have been doing that for a long time. And it gets back to the point Congressman Carney made. I have every confidence that the professionalism of our people will continue to be a vital factor in ensuring we retain the edge at sea.

The aircraft, the capabilities, the integration of all our sensors and resources I think will be able to be brought to bear in a way that will permit us to achieve our objectives.

Let me hasten to add, you see the direction in which the Soviets are moving. They are building this carrier; I expect them to build more. So one cannot take comfort in the snapshot of Soviet capabilities today, and that snapshot is moving. So I have seen no—we have seen no lessening, really, in the Soviet steady dedication to a military buildup improvement, and specifically an improvement in their capabilities that would give them a more balanced war-fighting capability. That is represented I think by exactly the point that you bring up.

Mr. **Bateman**. It does indeed expand their naval, their military, their stategic capabilities. [Deleted.]

Admiral **Lyons**. Exactly.

Mr. **Bateman**. Or otherwise [deleted].

Admiral **Lyons**. And in the same way, we count on a contribution of our allies. [Deleted.]

I want to go back to the point you made.

Excuse me. You had a question, Congressman?

Mr. **Carney**. Along those lines, would it be possible to provide to the committee a couple of pieces of background information that I am sure was available to the Navy [deleted].

I think that is important for us to understand when we deal with the question of the total size of our Navy.

Admiral **Lyons**. Right. That is a very good question and I will provide that background information for the record——

Mr. **Carney**. Thank you.

Admiral **Lyons**. [Deleted.]

Approximately. However, in their [deleted].

And this will be gone into in more detail I am sure this afternoon.

But I want to get back to the point you made on our people. Now I am a firm believer that people join the Navy to see the world. There is no finer sailor in the world today than the sailor we have in our Navy. In fact, I never cease to be amazed by their ingenuity and initiative. They are the ones who put it all together. And they are our national treasure, our No. 1 priority. They are what gives us the edge today.

I have in mind certain changes in the way we operate which would relieve some of the pressures on our sailors of continuous operations. We are examining putting a new dimension to what we call our Flexible Operations [FLEXOPS], looking at where we can substitute a battleship group coupled with land-based Tactical Air [TACAIR] in place of a carrier. If we can do that in one or two cases in a year's cycle, we will have saved a tremendous amount of O&M funding. At the same time, that we would have cut back the operating tempo and given the sailors either more time in port with their families, or more maintenance time, we accrue many positive results.

So I intend to make that a very high priority.

Mr. **Bennett**. We had not planned to call you back this afternoon, and it is now noon. I think we ought to shoot at 12:30, which means probably we ought to cut off questions for a while and let you go ahead. And then at the end of it we would have questions.

Admiral **Lyons**. I think we are just about through. I just wanted to walk through some more points featured in the vugraphs.

This is the Soviet force posture as it exists today, [deleted].

The pier structure at Cam Ranh Bay. I often thought when I was out in the Western Pacific as Commander Naval Surface Group, Western Pacific and Commander Task Force 73 [deleted].

The airfield.

[Deleted.]

We talked earlier about the Panama Canal, and the distances involved in moving maritime forces. In order to meet our treaty commitments, it requires a forward presence in the Mediterranean, the Indian Ocean, the Western Pacific, and, when required in the North Atlantic and the Norwegian Sea. [Deleted.]

Mr. **Bennett**. Of course I realize you can't be critical of people that have technical positions above you, but there aren't very many. But that worries me. Can you throw any light on the concern that I have about that?

Admiral **Lyons**. [Deleted.]

Mr. **Carney**. Could I reverse that question? I had wanted to ask you before when you were talking about the North Atlantic scenario. [Deleted.]

Mr. **Carney**. Right. I understand. Right. Thank you.

Mr. **Bateman**. Mr. Chairman.

Mr. **Bennett**. Yes, sir.

Mr. **Bateman**. I don't want to do it now because of time and other constraints, but I would appreciate it if someone might make an appointment and come and talk to me about [deleted]. As a new member of the committee, I don't know how you manage those things, and I think I need to know.

Admiral **Lyons**. I will be glad to do that for you.

We have talked about affordability. I know, Mr. Chairman, you are very familiar with some of the actions the Navy has been taking. I just thought we would mention a few here.

Mr. **Bennett**. Not all of them save money. Like your redeployment strategy.

Admiral **Lyons**. Well, not as much as we would like.

Mr. **Bennett**. Well, some of them cost money. I mean, I have raised this question. I am going to address this later in this hearing. I am not necessarily opposed to deploying ships in new ports, but you know when you put MILCON on top of that could be awfully expensive.

Admiral LYONS. Well, I am going to show you some of those new ships that we are building. We talked about people, and certainly the more people we can retain works to our advantage, and cuts down on our training costs. And our sailors like the new ships.

This is a very telling slide where high technology and what we have been able to build into our ships in terms of increased capabilities, versus an older class cruiser and the number of men required to man it.

This is a sizeable reduction, which reduces overhead cost and result in substantial savings that we have been able to save here.

Mr. BENNETT. We are going to have a series of votes in about 5 minutes. So I am wondering whether we ought to try and come back at, say, 2 o'clock with you, or whether you feel like you can conclude in 5 minutes.

Admiral LYONS. Yes; I think we can go into any questions and answers that you have at this time. I just wanted to set the framework here, and discuss anything else that you would like covered.

Mr. BENNETT. Of course we could ask questions for the record, too. I am not sure that you could have a dissertation of the nature which I would like to have or whether questions and answers would reveal this. But in equating how many ships you have to have in the various objectives you have, you have got to look a little bit at what they have got, which you have done in a way. But you really haven't told me how many—well, I am not sure that I have a feeling in my own mind about how many ships there ought to be of what kinds to do what has to be done in the Pacific or the Atlantic.

In other words, I realize they have got a certain number of ships and we have a certain number of ships, and I realize the degree of struggle that is involved in that. But I don't realize myself how much we have got to move from one side of the ocean to the other or how much presence they are going to have and what that takes.

Maybe it is too complex for anybody to state. Maybe you just have to have a feel for what would be successful.

Admiral LYONS. Well, we have done an analysis of what is required to, for example, keep our sea lines of communication open into the Pacific.

Mr. BENNETT. That is one thing. Then the other thing is to project power, and I don't really in my own mind, have not collected any figures, any numbers about how many ships or what kinds.

You have given me a good analysis of what they have and what we have. I don't relate that particularly to what is going to happen if you had a war over a particular time.

That has to be critical.

Admiral LYONS. Yes. Because that's very——

Mr. BENNETT. It may not be possible to do.

Admiral LYONS. That is right. [Deleted.]

Mr. BENNETT. Well, we now have to go, so we will come back at 2 o'clock. And I think it will be all right for you not to come back; we will have the submarine people. But I do believe maybe you could put something in the record that would clarify for me and for the record what I just referred to, my previous comment. That is, in an effort to look at the Pacific and the Atlantic as places where what degree of estimates you would have of problems that we would meet, and the sea lines opening is one part of it, the force projection is another.

Admiral Lyons. Yes.

[The following question was submitted to the witness to be answered for the record:]

Power Projection

Mr. Bennett. In terms of projecting power, how many ships and of what kinds do we need? In particular can you address the problems you would face in the Atlantic and Pacific, and how those affect the force projection needs of our Navy?

Admiral Lyons. The term power projection in reality refers to the mission of offensive sea control which is a vital role assigned our maritime forces. Accordingly in order to understand the role of offensive sea control, I must first frame that mission against the broad backdrop of the Maritime Strategy. The Maritime Strategy's central premise is deterrence—a deterrence achieved by being able to confront the Soviets with the prospect of a sustained global war. Hence the primary role of our naval forces in their global deployment posture is to deter war. The Navy's objective, if deterrence should fail, is to be able to fight the war successfully regardless of scenario. Therefore our naval forces must be sufficiently postured and structured to conduct effective offensive sea control operations by controlling forward sea areas through attrition and destruction of the Soviet maritime forces.

The aircraft carrier battle group (CVBG) is the cornerstone of our offensive sea control mission, possessing the full spectrum of capabilities necessary to defeat our potential enemies at sea. In peacetime a CVBG is composed of an aircraft carrier 6–8 surface combatants. [deleted]. For wartime operations, Carrier Battle Forces are established to enhance mutual support and to multiply strike capabilities. Carrier Battle Forces are made up of three or four carriers and associated escorts. Carriers, however, operate only as part of Battle Groups or Battle Forces. Thus, their presence in a fleet determines the number of Battle Groups or Battle Forces available to the fleet commander.

In a global war with the Soviet Union, Atlantic Fleet Battle Forces would have major roles to play both on the European flanks and in the North Atlantic in carrying out offensive sea control operations. [Deleted.] Offensive action in flank waters would significantly limit the forces that the Soviets could bring to bear against the sea lines of communication and is a central feature of the Maritime Strategy. [Deleted.]

I will next turn to addressing our sea control requirements in the Pacific. U.S. involvement in the Pacific and Indian Oceans is longstanding. The maritime nature of this theater has been recognized by maintaining a balanced proportion of total U.S. Navy Carrier Battle resources present in the area.

In a global conflict, the most immediate Pacific Fleet contribution to an early defeat of Soviet forces and to influencing alignment decisions in the area would be to engage Soviet forces wherever deployed, keep them defensively oriented, and prevent Soviet reinforcement of the European theater with Far Eastern forces. [Deleted.]

In conclusion, the combination of Atlantic Fleet and Pacific Fleet Carrier Battle Group offensive sea control requirements demonstrates the need for a minimum fifteen carrier battle group which comprises the benchmark against which we size the requirement for a 600-ship Navy.

Mr. Bennett. And of course I am sure nothing is perfect and there is no way to be precise about it, but a philosophical approach to what you feel would be possible on the present strength of the Russians and the Warsaw Pact would be helpful. Because I think that is what is going to be sought by people——

Admiral Lyons. [Deleted.]

* * * in terms of millions of dollars to reconfigure that.

Mr. Bennett. Since the thing is not a thing that you can absolutely be precisely accurate upon, it is a matter of judgment, we would like to have some final judgment from you as to whether or not we can afford to a less than 600-ship objective.

Do you feel we could or couldn't?

Admiral LYONS. There is no question in my mind that we cannot afford less. [Deleted.]

Mr. BENNETT. Which we are relying upon even for the 600-ship number.

Thank you very much——

Mr. CARNEY. Mr. Chairman, may I ask one question of the Admiral?

Mr. BENNETT. Yes.

Mr. CARNEY. One, I would like to congratulate you on your promotion. It is well deserved. But two, could you when you are submitting for the record additional information as the chairman requested on the 600-ship Navy, could you also submit for the record how we are going to approach our merchant marine requirements in a European scenario?

I am probably more concerned about that than I am about 600 ships in the Navy. Your job is to [deleted].

Admiral LYONS. Again——

Mr. CARNEY. You know, why do we need the Navy? I mean, I don't mean to be crass, but, you know, if we [deleted].

Admiral LYONS. The [deleted]. Mission of course, that is where a lot of allied shipping must come into play. It is a key element in the equation.

Mr. CARNEY. Could you spell that out a little for us on that, or maybe have someone come up and brief me on that. I would be glad to spend whatever time is necessary.

Admiral LYONS. Yes, sir.

Mr. CARNEY. Thank you very much.

[Whereupon, at 12:15 p.m., the subcommittee was recessed, to reconvene at 2 p.m., this same day.]

AFTERNOON SESSION

THE ROLE OF THE NUCLEAR ATTACK SUBMARINE IN NAVAL OPERATIONS

The subcommittee met, pursuant to call, at 2:05 p.m., in room 2212, Rayburn House Office Building, Hon. Charles E. Bennett (chairman of the subcommittee) presiding.

STATEMENT OF HON. CHARLES E. BENNETT, A REPRESENTATIVE FROM FLORIDA, CHAIRMAN, SEAPOWER AND STRATEGIC AND CRITICAL MATERIALS SUBCOMMITTEE

Mr. BENNETT. The subcommittee will come to order.

I appreciate your coming today. This afternoon the Seapower Subcommittee will hold a hearing on the role of the nuclear attack submarine in naval operations and how the new SSN-21 attack submarine will fit into the Navy's plans for conducting submarine warfare. The subcommittee is particularly interested in how well the SSN-21 design will address the needs of the submarine force in the next century, and to this end also seeks a better understanding of what those requirements will be.

Appearing before the subcommittee this afternoon are Adm. Kinnaird McKee, director of the nuclear propulsion directorate of the Naval Sea Systems Command and Vice Adm. Nils R. Thunman, deputy chief of naval operations for submarine warfare.

That is my prepared statement. I would like to say a little more introductory about these hearings at this point. We had a very fine presentation this morning, and I enjoyed it very much, but I have to bring it back to the context of why these hearings are being held. These hearings are basically being held because of public accusations that this committee has not adequately looked at a 600-ship Navy, and that there is no real reason to have a 600-ship Navy, and if we didn't have these hearings, you could count on it that there will be other hearings that may occur anyway, and at the end you can also count on regardless of what they find out, they will recommend cutting maybe 50 or 100 ships out of the Navy. It will look very authoritative and it will save money for the Treasury but our purpose is to get whatever ships are necessary, no more, no less, but whatever ships are necessary for the problems that the Navy is expected to address in various types of wars and under various circumstances.

As good as the testimony was this morning, it really didn't leave me with a very clear picture of that. You may not be prepared to leave a clear picture today, because you are prepared for whatever you are going to bring, but I am going to say to you that either in what you address by way of writing to the committee after by way of addenda to your material or some other way I must address in these hearings the major reason for these hearings, which is to determine whether or not we have too large a Navy, too small a Navy, it meets the threats that are there, what kinds of ships ought to be there.

This is terribly complicated, and maybe there isn't anybody living that can really do justice to that complex set of circumstances which might be very different from one time to another, and of course the allies are involved in this, allies on this side, allies on our side, to what degree they can be counted on.

The merchant marine is an example. As Mr. Carney well pointed out today, there is a lack of substance with regard to the merchant marine today. All these things enter in, but if these hearings conclude with just educating the members of this committee in general, they will really have failed, because the hearings are really designed to see whether or not we are in fact having the right complex, right constituency of ships, the right number, and the right arrangement of whichever ships there are.

If you don't address that today, I won't be critical of it, but as you go away from here, think about whether you have done everything you can to present this committee, and therefore Congress, with the figures that are necessary to show that at least as far as the submarines are concerned, that a certain number is needed, another would be optional, you can get by with whatever you can get by with, and what the threat is and this sort of thing.

Do you understand me?

Admiral McKEE. Yes, sir.

Admiral THUNMAN. Yes, sir.

Admiral McKee. Let me just respond briefly. Admiral Thunman is the requirements guy for the CNO. I am the garage mechanic that has to make the automobile come to life.

Mr. Bennett. Your modesty is overwhelming.

Admiral McKee. That is really what we are prepared to talk about today. I think we have with us what we need to respond to you, and particularly to describe SSN-21 and what we are doing and what we can do and what it means. We have also got a blackboard in case we need it. So what I would suggest, Mr. Chairman, if it's all right with you, would be to ask Admiral Thunman to start, by going over the requirements.

The fundamental position we are going to try to get across to you all is that there is a specific tactical and strategic need for these submarines, that we know what they have to do and how, and there is very little assumption. As we told you over 1 year ago when we had a similar hearing, there are very few assumptions in what we do, because we live with the Soviets day in and day out. So where you have a variety of authors in Washington who will write all kinds of things about submarines, based on supposition, what we write is based on experience alongside the other guy.

Admiral Thunman is going to deal with that as well. If that is OK, that is the way we will proceed.

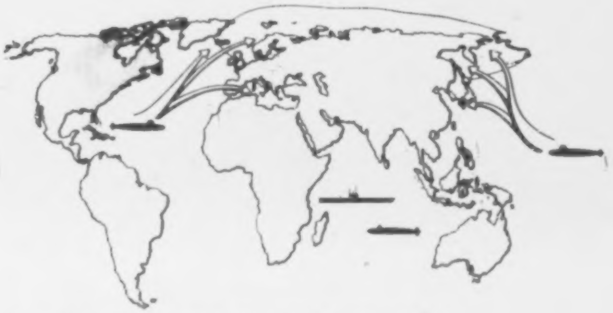
Mr. Bennett. That is a good way to start, and I must say somewhere along, either early on or later on, I would like you to specifically address what happened to the first year or two of World War II in the way of sinking ships, and how we are better off or worse off with what we have today meeting what is on the other side in that situation, because a couple of billion dollars in shipping was lost, I think, and a couple of hundred ships in the first year. You don't have to do that first, but sometime I would like for you to address that.

Admiral McKee. I will, sir.

STATEMENT OF VICE ADM. NILS R. THUNMAN, DEPUTY CHIEF OF NAVAL OPERATIONS FOR SURFACE WARFARE

Admiral Thunman. Thank you, Mr. Chairman. It is a pleasure to be here. Let me first discuss the Navy's overall maritime strategy.

ATTACK SUBMARINE ROLE IN U.S. MARITIME STRATEGY



- AT OUTSET OF HOSTILITIES SSNs MOVE DEEP INTO SOVIET WATERS
  - SINK HIS FLEET
  - BOTTLE UP HIS SUBMARINE FORCE
  - ATTACK LAND BASES
- OFFENSIVE SSN ACTION PROVIDES SUPPORT TO BATTLE GROUP OPERATIONS WORLD WIDE

During the deterrence or transition to war phase, we will see forward global movement of our Navy, and our SSN's role in that movement is to go deep into the sea control areas of the Soviet Union [deleted] into his home waters, and this shows the attack submarine role as part of that maritime strategy.

We immediately move into these areas, sink his fleet, bottle up that massive submarine force. Now with Tomahawk we can threaten land bases, as well as provide offensive support to our battle groups as they operate around the world in conducting their offensive operations.

You talked about do we have the right number, and here I show our plan of 100 SSN's. Today we have 95. We will reach 100 in [deleted] and these are the numbers arrayed against us. We believe we can take on those superior numbers, 2½ or 3 to 1. As Admiral McKee says very eloquently, if our submarines are not in an area where we are outnumbered, we have come to the wrong place. We believe that this is the right number. It is not a maximum. It is the minimum required, and as long as these are the right submarines and the right weapons, the right state of quieting, the right sensors, we can prevail, carry out that mission deep into his home waters, and do a lot of damage over a long period of time.

Mr. SISISKY. Admiral, can you work left to right?

Mr. BENNETT. Let me say while you are adjusting that, I want to ask you—that picture is a real nice-looking picture. It looks a little optimistic to me if you expect to keep all of the enemy subs out of the Atlantic where they are probably going to be trying to sink our lines of communication and transportation. You don't really say you are going to sink them all, do you?

Admiral THUNMAN. I think we are going to sink a large number of them.

Mr. BENNETT. That is your goal, I know.

Admiral **Thunman**. And we will sink their high-value submarines, [deleted]. This picture, incidentally, is a picture of the world looking from the top down.

Mr. **Bennett**. It really looks good where you have chased all those enemy submarines, too.

Admiral **Thunman**. Certainly there will be submarines trying to operate worldwide, and they will get out worldwide, and we have other forces to deal with those. We have attack submarines supporting the battle group, but with [deleted] capable submarines properly armed, you can do a tremendous amount of damage in his home waters [deleted].

This was probably discussed this morning, the July exercise, [deleted]. Let me describe what this side is. Every dot is a submarine or a ship. This is the key.

Mr. **Bennett**. [Deleted.]

Admiral **Thunman**. [Deleted.]

Mr. **Bennett**. What are they going to be doing with all of those submarine [deleted].

Admiral **Thunman**. I think they want to intercept any forces that we would send in this area. [Deleted.]

Mr. **Bennett**. I thought that would be their objective. I wondered what they thought they were going to do [deleted].

Admiral **Thunman**. [Deleted.]

Mr. **Bennett**. [Deleted.]

Admiral **Thunman**. [Deleted.]

Mr. **Sisisky**. But the important thing is that [deleted].

Admiral **Thunman**. Yes.

Mr. **Sisisky**. [Deleted.]

Admiral **Thunman**. They certainly could have. It would have been difficult for some of them. They are not as high performance as others, but certainly could have, and they had the whole gamut, [deleted]. They did concentrate in this area for a while, [deleted].

Mr. **Bennett**. [Deleted] would that be a possibility?

Admiral **Thunman**. It is a possibility, but I feel that [deleted].

Mr. **Carney**. I think I might be wrong, but listening to the chairman's questions I think he envisions the Soviets taking the same type of tactic as the Germans did in World War II. What you are saying here is they are using their assets to protect assets that were not available in World War II. [Deleted.]

Admiral **Thunman**. I know we have seen exercises where that is their purpose. [Deleted.]

Mr. **Carney**. And in this exercise that is why their assets were probably where they were?

Admiral **Thunman**. But you also carry forward, [deleted].

Mr. **Carney**. [Deleted.]

Admiral **Thunman**. Absolutely

Mr. **Carney**. [Deleted.]

Admiral **Thunman**. Yes, sir, [deleted].

Mr. **Carney**. Thank you.

Admiral **Thunman**. Let me go on here. We believe we have a submarine force that is ready to carry out this immediate forward deployment. [Deleted.] That is really a demonstration of material readiness, the fine submarines that Admiral McKee and all who are involved were developing and maintaining. [Deleted.] We have a force today that is materially ready to do that job. That is important.

I go back to pre-World War II, and we didn't train that way. If you go into Clay Blair's book, "Silent Victory," you will see that prior to World War II our submarines did not really consider the capabilities of the Japanese. They never operated around the Japanese. They didn't really think about what they would be doing against the Japanese.

In the operational area, we demonstrate our readiness because these are the areas where our submarines operate today. [Deleted.] We did not do that before World War II. When the first S-boats arrived off of the Philippines it was the first time they ever heard it. Today we are ready and our skippers are competent. All of the officers here have done these operations very successfully. Certainly Admiral McKee is a superstar in this area, but all of us felt very confident that we could go and do that job [deleted].

I talked about the Arctic. The Arctic is very important to us. [Deleted.]

All of the results have been good.

It is interesting here on the [deleted].

Mr. **Bateman**. Mr. Chairman.

Mr. **Bennett**. Yes.

Mr. **Bateman**. [Deleted.]

What does good mean in this context?

Admiral **Thunman**. I have a backup slide that I can show you on that, [deleted].

That is what I mean by good results. [Deleted.]

I will show you that we are doing the right thing.

Mr. **Bennett**. What has a helicopter got to do with that?

Admiral **Thunman**. What this shows is us [deleted] and the results are really what I am keying on and not the helicopter.

Mr. **Bennett**. [Deleted.]

Admiral **Thunman**. I have other pictures—[deleted]. It was quite an effort, but these are two important points, though. [Deleted.] We are working to maintain the capability there. [Deleted.]

[At this point there was a television showing.]

Admiral **Thunman**. [Deleted.]

Mr. **Bennett**. [Deleted.]

Admiral **Thunman**. Yes, sir. [Deleted.]

Mr. **Bennett**. That is somebody on our ship doing all that talking?

Admiral **Thunman**. Yes, sir, the commanding officer.

Mr. **Carney**. [Deleted.]

Admiral **Thunman**. [Deleted.]

Admiral **McKee**. [Deleted.]

Admiral **Thunman**. [Deleted.]

Mr. **Bennett**. [Deleted.]

Admiral **Thunman**. [Deleted.]

Mr. **Ortiz**. [Deleted.]

Admiral **Thunman**. [Deleted.]

Mr. **Bennett**. [Deleted.]

Admiral **Thunman**. [Deleted.]

Admiral **McKee**. The important thing is you have read your Jane's Fighting Ships.

Admiral THUNMAN. I am going to cover that.

Mr. BENNETT. [Deleted.]

Admiral THUNMAN. [Deleted.]

Mr. BENNETT. [Deleted.]

Admiral THUNMAN. [Deleted.]

I talked about the Arctic, and I wanted to show you some pictures of one of our submarines surfacing near the pole; the CNO, and I went up there, went aboard. What you are hearing is the noise of surfacing. Here you see the submarine sail breaking up through about a foot of ice. The background, that ridge there, the ice is about 25 feet thick.

Mr. SCHAFER. How thick is it where you are?

Admiral THUNMAN. About a foot, that area is small, about 100 by 200 yards. We had one of our [deleted].

Mr. SISISKY. You had some pretty good pictures of the *Mississippi* also. Have you seen those?

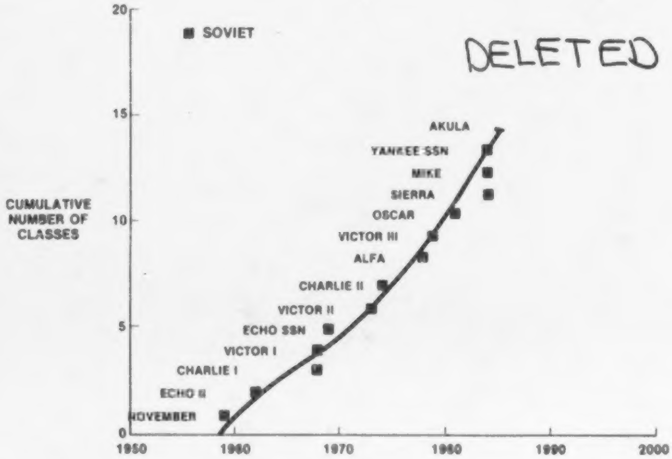
Admiral THUNMAN. Yes, sir, I have [deleted].

This is colorful, though. This is from outside. It was 35° below, and we watched it. We were 50 yard's away watching the submarine break up through. Notice the fairwater planes have been rigged vertically. This is a *Sturgeon*-class submarine with the capability to surface up through the ice. Our previous 688's did not have the capability. And when we got on board, it was like an oasis in reverse. We went from 35° below to the warmth of the submarine and the steak, lobster, and everything else.

Well, that kind of shows you the operations that we are conducting, and why we are confident of our capabilities today. But let me move now into our programs.

First we are driven by the maritime strategy, what is our mission. We are also driven by the threat. This shows the introduction year of submarines in the Soviet fleet, and these are those new ships that I talked about. These are the ones in the nineties that we expect to see and our intelligence community expects to see. Let me talk about this modernization a little bit more.

U.S. AND SOVIET NUCLEAR ATTACK SUBMARINE NEW CLASS INTRODUCTION



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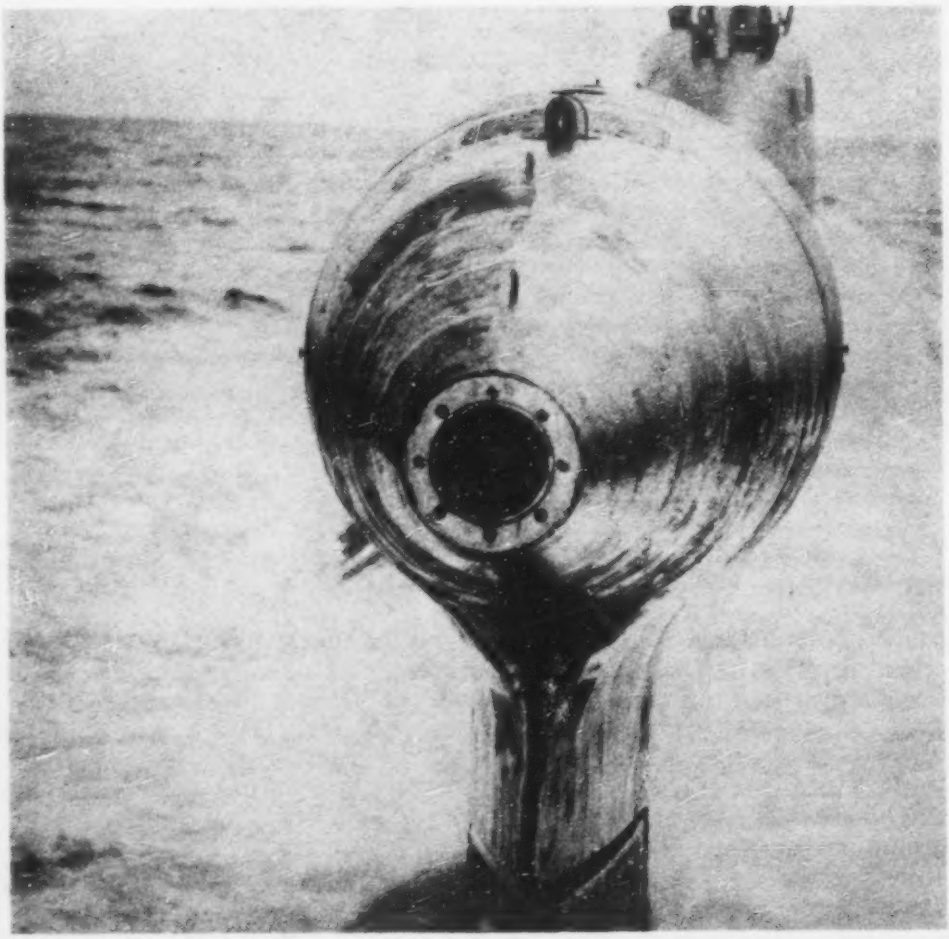
The *Akula*, a big ship, 9,000 tons. [Deleted.] I believe it's big, so that they can do the things necessary to quiet it. I believe it's bit so that it has more firepower, and it has improved capabilities. I believe the ship may have capability. For example, [deleted].

This gives you an idea of the size. That is the *Akula*, 9,000 tons. This is their modern *Victor III*, which is about the same as our SSN-688, 6,800 tons. [Deleted.]

The *Mike*, you saw the pictures of the *Mike*, again a big ship, quiet, big I believe for quieting, big for firepower.

NUCLEAR ATTACK SUBMARINE
SIERRA CLASS
8,000 TONS

The *Sierra* class launched in 1983, a big ship, with unusual capabilities [deleted].



But I bring it out because you see these things in the paper, and with people who are not technically qualified, when they make speculations that the Russians are doing something when we know clearly they are not.

Mr. **Schafer.** Why is that? [Deleted.] Is that photograph in the public domain?

Admiral **Thunman.** [Deleted.]

Mr. **Bateman.** Admiral, I am curious as to who saw the photograph, and then interpreted for Jane's or anyone else. Was that authorized?

Admiral **Thunman.** [Deleted.] For example, that photograph you saw of the *Sierra* was unclassified, [deleted]. Here again, I think someone not technically qualified made a speculation, and that is too bad.

Mr. **Bateman.** There was no breach of security?

Admiral **Thunman.** No, sir.

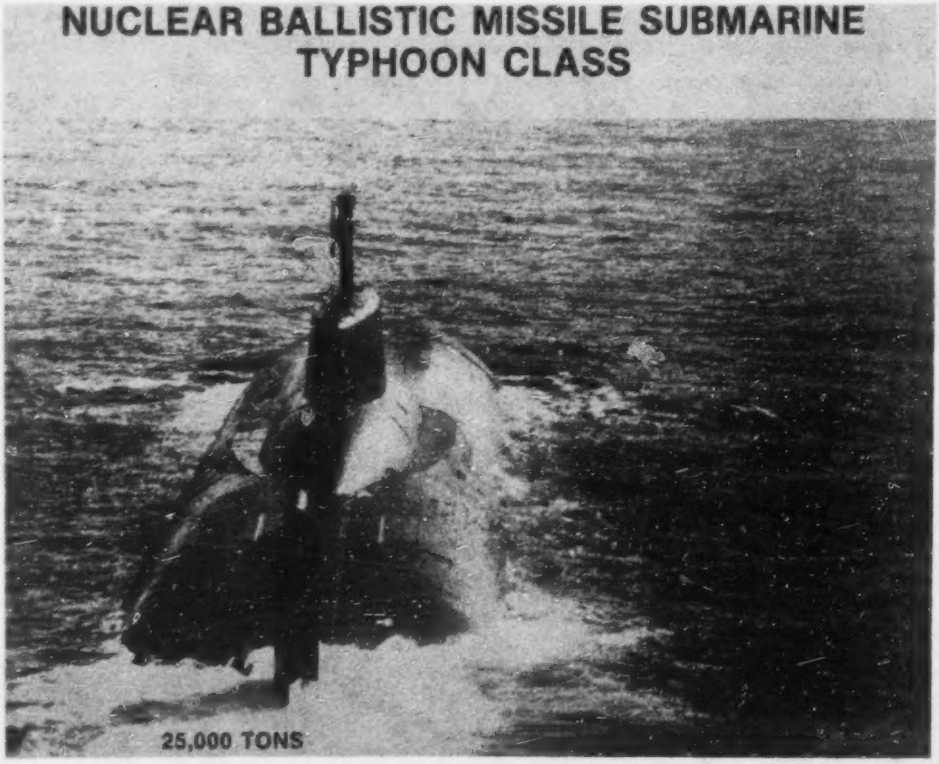
Mr. **Bateman.** No unlawful disclosures?

Admiral **Thunman.** No, sir; there was not.

NUCLEAR CRUISE MISSILE SUBMARINE
OSCAR CLASS

14,000 TONS

On into the *Oscar* class, 14,000 tons, [deleted] a very quiet ship. And finally the *Delta IV* that I talked about, that new SSBN, another big, quiet submarine.



NUCLEAR BALLISTIC MISSILE SUBMARINE
TYPHOON CLASS

25,000 TONS

Typhoon. [Deleted] not privy to. I think the same article speculated that there was a magnetohydrodynamic propulsion system beneath the hull of the *Typhoon.* Well, we know there is not. In that case, someone is making a speculation because he doesn't have all of the information. You cannot respond because of classification.

This is a comparision which shows the big ships, big attack submarines, going into their fleet. Here is our improved 688, which is the submarine we are asking for in the 1986 authorization, and the follow-on SSN-21, which is for the 1989 authorization. These are the two programs that we are moving on to counter this threat and enable us to carry out our maritime strategy.

First, the improved 688. I brought a model to show you a little bit about this ship and compare it to the SSN-21. We have done everything we can to make this ship capable, and it is a necessary ship, if we are going to be able to go against those *Akulas,* and the *Sierras,* and the *Mikes* that I showed you. They have increased the firepower with vertical-launch systems these launchers up in the bow capable of shooting the Tomahawk.

Enhanced surveillance capability we have added because these ships will be replacing our surveillance-capable *Sturgeon*-class submarines. It is arctic capable. Prior to 1983, the 688's were not arctic capable. These are. Maximum quieting. A good combat system. In my view, it's twice as good as the 688 that was coming into the fleet in 1981–82 timeframe, [deleted].

SSN 688 VERTICAL LAUNCH SYSTEM

NOW AT SEA

And just to show you the vertical-launch system, this is it. It's at sea today. The first ship has been delivered, and we will be testing it shortly.

Mr. Bateman. Which one is it that has that new capability?

Admiral Thunman. It's the *Providence.* All subsequent 688-class submarines will have the vertical launch system capability, some 16 more authorized. We move to the SSN-21. Admiral McKee is going to talk a lot about this, but I would like to emphasize this submarine, from a combat point of view, is a quantum improvement over today's 688 and will meet the threat.

Mr. BENNETT. Will it be our 96th or will it be—what?

Admiral THUNMAN. I will show you the numbers, but you know we vary our numbers. The first one comes on board in [deleted]. We go over it, then we dip down, because as ships reach their end of life, 30-year life, they come out of commission, and the 637 class will be going out of commission in large numbers in that timeframe. You will see that one in just a moment.

Mr. BENNETT. The first one of these will be launched when?

Admiral THUNMAN. [Deleted.]

Mr. SISISKY. Sort of like Claude Pepper.

Admiral THUNMAN. There are a lot of significant improved capabilities for these ships for weapons, salvo-firing capability, tracks a lot more targets with a lot more sensitive sensor systems, [deleted] greater tactical speed, and that is what is important. How fast can you go when you transit and not be attacked? How fast can you go when you search, detect, track, and attack without being attacked in return? [Deleted.] All of these things I think Admiral McKee will show you.

Mr. SISISKY. Is that [deleted] greater than the SSN, the *Los Angeles* class?

Admiral THUNMAN. [Deleted.]

Mr. CARNEY. When you say "tactical speed," do you mean that you can go [deleted] faster and still remain silent?

Admiral THUNMAN. Yes.

Mr. CARNEY. Undetectable?

Admiral THUNMAN. Yes; we estimate you can go [deleted].

Anyway, those are the combat capabilities, and I will address more, as we get on.

Let me show you the submarine, though, and compare the two. These are the same scale. You can see the SSN-21, a little bit shorter than the 688, but this has a [deleted] and there is an improved propeller for quieting and you see some dihedrals here for improved controlability of the ship.

Mr. BENNETT. [Deleted.]

Admiral THUNMAN. You have a better stability with this ratio by far than you have with this ship. This is a very stiff ship to operate.

Mr. Sisisky recalls, you get it going down, you work to get it coming back up again, especially at big angles.

[Deleted.]

It is, and of course, we need the bigger size.

Mr. CARNEY. Lower drag?

Admiral THUNMAN. Lower drag consideration, but we need the bigger size, 9,150 tons.

Mr. BENNETT. Why do you need the bigger size?

Admiral THUNMAN. Quieting.

Admiral MCKEE. [Deleted.]

Admiral THUNMAN. [Deleted.]

It is big for these reasons, and again, the Soviets have found this to be the case, too. That is why their ships are big.

Admiral McKee will address a lot of these things more in detail, so I will introduce the garage mechanic.

Mr. **Bennett**. This is a man who succeeded Admiral Rickover. He is still in the hospital now?

STATEMENT OF ADM. KINNAIRD McKEE, DIRECTOR, NUCLEAR PROPULSION DIRECTORATE, NAVAL SEA SYSTEMS COMMAND

Admiral **McKee**. He is not in the hospital now. He is still at home. He still has some paralysis. He's not yet ready to go, so I don't think he will.

You asked about the German submarines, and there were a lot of things that were different then. They had 52 boats, a little over half of which were ocean going, and they wreaked havoc, but we didn't have a convoy system in operation, not enough escorts, airplanes. Radar didn't work, but the principal reason they beat us so badly is that we and the British and the French and everybody else had been practicing against the wrong target.

Our own submariners had concluded, with the advent of active sonar, you couldn't do a periscope approach any more, you would get caught. So we concluded all attacks had to be made submerged, which meant you had a verifiable floating mining field, an immobile platform. The Germans came out and delivered all their attacks running at 18 knots on the surface, while we were busy looking for them down in the water.

They completely scrambled 20 years' worth of tactics and it points up what you were saying. That is why we think we are better off; [deleted]. They have learned that.

The Germans had a hell of a time because most of the torpedoes didn't work. We had the same problem initially in World War II when ours didn't work, due to the same problem, the magnetic exploder, they had it 4 years before us.

In the battle of Narvik, they made fools of themselves. Their torpedoes hit but didn't explode, so nothing sank. The Germans went through a terrible period.

Today we spend a lot of time shooting torpedoes, not just to see if they run, but to see if they explode.

Does that answer your question on that?

Mr. **Bennett**. Yes.

Admiral **McKee**. Most of what you saw this morning is so highly classified, please be extra careful when you have your hearing tomorrow.

You are going to talk to people who have no access and no reason for access. If we are going to carry out the strategy that Admiral Thunman described, we have to have effective submarines. If a submarine in today's world, in our Navy, must be verifiable or we should not build it.

The numbers are important, but if any of our skippers find themselves not outnumbered, we have sent them to the wrong place because our job is to use the leverage that comes with submarine warfare, to get a hell of a lot more out of a handful of boats than you can get with a large number of surface ships.

What have I just described? Guerrilla warfare at sea. You have people writing books about it all over the place. The critical elements are stealth, maneuvering, and firepower and that is where the principal thrust of our design for SSN-21 is, on stealth, maneuver, and firepower.

We have already talked about firepower. Specifically, the improvements in the boat are here, acoustic advantage, that is, we want to preserve the difference in radiated noise between us and the other guy out into the next century.

We need adequate speed and, most important, tactical speed, and I will talk more about that, depth, firepower, tactical engagement potential, but let me give you an example.

Because of the tactical speed in the SSN-688 submarine, when it is escorting aircraft carriers in direct support, battle group mode, [deleted].

Mr. **Bennett**. Why.

Admiral **McKee**. [Deleted.]

Suppose—now I am the Soviet submarine [deleted].

That is bad. Reaction time is a critical weakness in our business. That is why you need the high tactical speed; engagement potential.

Resiliency, you've got to be able to take hits and stay on the line. You can't come home every time something breaks. Finally, it has got to have an adequate payload. [Deleted.]

Mr. **Schafer**. [Deleted.]

Admiral **McKee**. Those are the issues that have been raised again since last time I came over: [deleted] and there is a lot of technology that we ought to be incorporating that we are not, the same old anvil approach to submarines.

It is vulnerable to something nobody understands, but it is vulnerable.

I will talk about that and the other arguments. Why do we need it now? It costs too much. Well, why do we need it now? It is pretty apparent. If we had to go to war today, we could win.

If we went today, we wouldn't have a problem in doing [deleted]. The issue is tomorrow. I propose to address these issues and take you through them. Why isn't it faster? I will talk to you about why isn't it faster.

In general, when people talk about submarine speed, they think it is like the speed of their outboard towing skiers in the Potomac River. How fast will it go? Like a high-performance car.

Speed in a submarine, though, is a far more complex thing. There is no single submarine speed. There are submarine speeds, and we have to deal with each of them. Simple, brute speed has use and utility in only one application, and there are a lot of jobs to do, so we must talk about four kinds of speed.

Safe transit speed. How fast can we go to get on station as rapidly as possible without undue risk of being shot on the way; important because that will determine the effective force levels of our submarine force because in the final analysis it is not how many boats you have in the locker, but how many you can maintain on station.

Search speed. How fast can you run while searching in an area where you know there is quiet opposition, and how big is the area? If search speed is low, that means you are noisy at higher speeds.

If the area that a submarine must search in a given length of time is very big, then you need more submarines, again, the effective force levels go down.

Tactical speed in the approach and the attack. You want to be able to deliver the attack as quickly as possible. Tactical speed, counterattack, escape, and evasion. You go as far as you can, you want to try to outrun the torpedo. [Deleted.]

Area coverage is a function of the search speed. We also need to manage the approach to the enemy. If we have sufficient quiet speed in the approach [deleted].

Reaction time, search avoidance, weapons evasion. When you put a matrix together and ask what matches what, you find that you need the highest possible tactical speed in every instance. [Deleted.]

It is that sort of analysis that we have done. We started with a ship shaft horsepower plant, we can build that. The submarine [deleted]. Is it worth it? No. You would lose in agility, and quiet speed, and it would cost more.

I will try to show you what that means.

This is just a scheme. I am going to show you how the detectability of the submarine is affected by speed, and it is affected by various aspects of the submarine's configuration, [deleted].

This is the performance of a 688-class submarine today against what we estimate will be the capability of a Soviet submarine in the 1990's.

The tactical speed of that 688 is about [deleted]. That is revolutionary.

That may be an ovestatement to you, but not to me. For the first time in history, we can take a submarine and use all the mobility Admiral Rickover gave us.

We have never been able to use the full mobility of a nuclear submarine in a tatical situation because of this noise phenomena right here.

The Soviets go faster, but noisier. Here is the curve for the improved 688. It will be better, [deleted].

Taking the best the Soviets have now and projecting improvements, [deleted].

What a diesel is is a floating minefield. You don't want to run over him, he is not as quiet as we are, even at very low speed, and if he tries to maneuver to deliver an attack, he has a big problem, so that is——

Mr. **Mansfield**. Both of those graphs you show detectable ranges, [deleted].

Admiral **McKee**. Against an advanced Soviet threat. [Deleted.]

They have just begun to come along. Remember, the big problem we had with the loss of technical material through the Danes, the Secretary of Commerce let a lot of stuff go through the Danes throughout the last decade.

The Soviets are getting better, but we are still better. On a day-to-day basis today, we are still better, but the problem is that they have an immense effort underway and they are getting better. [Deleted.]

We will eventually get to the place where everybody will be very quiet at low speeds, and it is going to be harder, and harder, and harder. Nobody is going to shoot when everybody is a slow speed;

but when you make your move, if you can't do it quietly, you become so vulnerable.

Depth, you've heard the charges; it doesn't dive deep enough. [Deleted.] We are designing this submarine to be built out of HY-130 steel.

The 130 reflects the strength 130,000 pounds per square inch. It is not ready for production yet. We are building the first ship our of HY-100. It will dive [deleted].

When we can use HY-130, with the same hull design we get a boat now that will operate at [deleted] test depth.

[Deleted.] When the going gets rough, you use all the depth you can. We had boats in World War II that [deleted] were designed [deleted]. How much of that reserve can we use?

[Deleted.]

The *Alfa* operates [deleted].

Even though this boat will be a [deleted] submarine, we are designing all of the seawater systems, valves, everything to go deep, so when we get the other material we can use it without having to go back and redesign.

Yes, that is deep enough. That is deep enough because if I want to go deeper, I am going to have to give up something, including a lot of money.

I will have to pay more for the boat, and make it smaller, and reduce its performance, and pay a hell of a lot more for the propulsion to make the boat go faster, the deeper you go, the harder it is to make it go faster.

Mr. SCHAFER. How deep has the *Alfa* really gone? You see a lot of things, speculation, [deleted].

Admiral McKEE. [Deleted.] I will talk a little about that plant.

It is a hot rod. It is a high-performance submarine with little sound quieting. Somebody asked me, why did they build it? I think Gorshkov turned his people loose to build a submarine to compete with the Americans, in quieting and performance [deleted].

They came out, and went to sea, [deleted]. So Gorshkov called his builders back again. They said, give us a little more money and we can fix it. He replied: I don't believe any of you guys, so I want another group to build me a submarine that will go so fast and so deep that a torpedo can't hit it, and I don't give a damn whether it makes noise or not.

Two groups went out and built submarines, and it turned out that they ended up with both types, but they only built seven *Alfas*. The others coming down the pike are built in the same naval architecture environment that we have.

Mr. BATEMAN. They built seven *Alfas*, [deleted].

Admiral McKEE. Yes, sir.

Mr. CARNEY. They got a side benefit from it, through, we have the amateurs over here focusing in the wrong direction.

Mr. CAVAIOLA. Is the significant increase in depth sufficient reason to wait to build the first submarine?

Admiral McKEE. We cannot wait. [Deleted] good enough to do any of the missions that Admiral Thunman showed you in the near term. We are building a boat that won't be coming into the force in numbers until the middle of the next century, and——

Mr. BATEMAN. Next decade.

Admiral **McKee**. One thing I am going to show you is this boat has more high technology and a lot more risk than any submarine we have built since *Nautilus*. We better get on with it, because if I can't deliver the quieting, all these requirements pale into insignificance.

I will show you the kinds of work that I have to do. There are always those that say: "Let's wait, maybe something better is coming along."

We will be damn near as good with HY-100 as with HY-130, but we will have a more survivable ship in combat with the HY-130. If, we got going, we could build maybe the third or fourth boat with the HY-130 and it wouldn't be that big a deal.

Mr. **Schafer**. You said really, it wouldn't cost that much more to build with HY-130. What is holding us back from having a [deleted] submarine?

Admiral **McKee**. We have done most of the R&D toward qualifying the material, but we must build a full-sized hull section, put it on a real submarine that goes up and down, and demonstrate that you can build it full size. We must also show that it won't fatigue or crack it. The plan is to take the *Dolphin*, a deep-diving research submarine, the AGSS-555, and replace the bow section with a HY-130 section. That will qualify the technique [deleted].

Why haven't we done it? Budgetary.

Mr. **Bennett**. What is the purpose of this type of submarine, to shoot other submarines?

Admiral **McKee**. This submarine performs four missions. One is to kill other submarines, and it has to be designed to that specification, because that is the most difficult task it has to accomplish.

Mr. **Bennett**. It is difficult.

Admiral **McKee**. The fleet commander's option is, he can load——

Mr. **Bennett**. It is to kill submarines that might do what?

Admiral **McKee**. [Deleted.]

What you would really like to do is kill them [deleted].

Mr. **Bennett**. How does it win wars? In other words, it must have a purpose other than just shooting other submarines. Trying to do something in order to keep that something from doing something.

You already told me one, [deleted].

Admiral **McKee**. Right. It will sink submarines that will otherwise come out in the deep ocean and interdict the lines of communication. It will carry the Tomahawk missile, nuclear or conventional, and you shoot at land targets with that. [Deleted.] This submarine has the ability to do that. [Deleted] equipped with Tomahawk missiles [deleted].

Mr. **Bennett**. It allows our communication to be kept open, [deleted]. What else? Anything else?

Admiral **McKee**. Those things are correct.

Admiral **Thunman**. Sinks his fleet.

Admiral **McKee**. Surface fleet.

Mr. **Bennett**. Any more? Which one of those is most important by what percentage?

Admiral **McKee**. I would say, I wouldn't give you a percentage, because what you have got is a ship that can do four of the Navy's six missions, and the most important one is dictated by the tactical situation at the time.

You need to leave that decision to the fleet commander, not to us back here in Washington. Which mission is most important is always going to be driven by the tactical situation. [Deleted.]

Mr. **Bennett**. Star Wars is not going to solve one of these things you referred to. This is low level.

Admiral **McKee**. These hug the ground, cruise missiles.

Mr. **Carney**. Wouldn't it be fair to say it is the only thing we would have [deleted].

Admiral **McKee**. Yes, sir; the only thing that under wartime conditions will put their submarine force at risk, period.

Mr. **Bennett**. A hundred—that is a question that comes right down to why these hearings are being held. Our critics have said we don't need a 600-ship Navy.

Admiral **McKee**. I apologize, I told you last year the story about insurance.

Mr. **Bennett**. I could stand you telling me again.

Admiral **McKee**. A hundred is what we can afford to buy. Admiral Thunman and the JCS have worked for years, and the number we need keeps coming up [deleted] as part of a balanced fleet. As an analogy the insurance salesman says you need 300,000 dollars worth of insurance, and you say, I can't afford it, we will do with less.

Mr. **Bennett**. If one major function of these submarines is to knock down enemy submarines [deleted] then you have really got to get rid of these submarines.

[Deleted.]

Admiral **McKee**. Our mission is to get rid of as many as we can [deleted].

Mr. **Bennett**. You ought to have more than 100?

Admiral **McKee**. Yes; in absolute terms the number ought to be greater, but when the CNO and the Secretary look at a balanced Navy——

Admiral **Thunman**. [Deleted.]

Mr. **Bennett**. This is the gut of this hearing.

Mr. **Sisisky**. In the balanced fleet, isn't the ratio of growth greater in the submarine force in the Soviet Navy than the surface ships?

Admiral **McKee**. The rate of production, they build anywhere from 7 to 10 a year, and 2 to 3 surface ships a year.

Mr. **Sisisky**. It seems that, did you build that into your projections to balance the fleet?

Admiral **McKee**. Now, you are dealing with their definition of a balanced fleet, which is almost all submarines, and a handful of other things.

Mr. **Sisisky**. I though we were talking about our balanced fleet.

Admiral **McKee**. Look at it from the other guy's standpoint. He sees his balance, as predominately submarines, and we see our balance as predominately other things with submarine support.

Submarines are 35 percent of our Navy. That is not small.

Mr. **Bennett**. You got an idea what this hearing is supposed to be about and these numbers are really important, and you have shown 100 is a very mediocre figure when you consider how much emphasis they put upon submarines and their ability of these submarines to deliver attacks covered by Star Wars, even if we get Star Wars, so we are short of [deleted] submarines.

When we get the aircraft carriers, we can discuss that. Should we give them something out of aircraft carriers? We did not have that addressed this morning? You zeroed in on numbers. That is what we are criticized for.

You have clearly shown 100 is short, and I am thankful that you have done that. I am not going to ask you to do it.

Mr. **Spence**. Mr. Chairman, a big factor is being capable and properly armed.

Admiral **McKee**. Numbers alone won't do it.

Mr. **Spence**. You say 100; that is supposing they are capable and properly armed.

Admiral **McKee**. Otherwise, you are going to lose. The other thing, too, is that we have to consider effective force levels. With the quiet transit level and heavy armament of SSN-21 we anticipate [deleted] more time on station for this class of submarine than the others, is an effective increase in the size of our submarine force [deleted]. That saves a lot of money.

Mr. **Bennett**. JCS has said [deleted] that is a fact statement, I think they have said it, and you testified, somewhere between 140 and, 150, you think, but you have not given the Navy's reasoning for saying you think they ought to have [deleted] if you think it.

Admiral **McKee**. That is not my calculation.

Mr. **Bennett**. How many do you think?

Admiral **McKee**. [Deleted.]

Admiral **Thunman**. I would like to add one thing, I think that study that you referred to talked about reasonable assurance for winning and addresses all the forces. I don't know the carrier number [deleted].

Admiral **McKee**. Everything is bigger in that JCS number.

Admiral **Thunman**. I agree with him.

Mr. **Bennett**. They have also said we don't have the number of carriers we ought to have, I understand that. [Deleted.] That is for today's challenge.

Admiral **McKee**. My feeling is if we can maintain the quality of our submarines and the quality of our people and the caliber of our weapons, and give our young skippers the tactical attitude to handle their own problems [deleted].

Mr. **Bennett**. Why do you need 100?

Admiral **McKee**. I have already told you I am buying insurance.

Mr. **Bennett**. You may not be able to answer the kind of question I am asking. We have been asked to justify the numbers and so I am asking you the question, even though it is unanswerable.

You may tell me, well, they have so many submarines, we got so many potential targets in the Warsaw Pact, and we can do "*x*" with that.

How do you arrive at this? But this committee has been challenged through the national media and we will be challenged tomorrow by testimony that we have too many submarines, not too few, and without you giving me some reasoning as to why we need a specific number, I am somewhat at a loss, so you told me, you feel like it really doesn't have to be [deleted] with today's challenge, but you haven't told me why it has to be [deleted].

Maybe you can't do it now. Maybe for the record.

Admiral McKEE. Ron, do it for the record to show the derivation [deleted].

Admiral THUNMAN. I can show you that if you have [deleted] submarines, and you only have [deleted] available, you come to look at the areas you want to cover——

Mr. BENNETT. The other thing [deleted]. That is saying they are not all available. I am interested in what you are going to do [deleted]. OK, whatever it is.

Admiral THUNMAN. [Deleted] give us 30 submarines up in this key area, [deleted].

It is important that we hold open the sea lines of communication and important that we are able to take our forces across the Atlantic, support NATO, Norway, and it is interesting to me how concerned they are about——

Mr. BENNETT. Don't you have to look at the enemy numbers?

Admiral THUNMAN. Yes, sir, we expect to go against these numbers. There is about a 3 to 1 ratio.

Mr. SCHAFER. We can't read those.

Admiral THUNMAN. If you look up here——

Mr. BENNETT. 3 to 1; you think you are that much better?

Admiral THUNMAN. If you can give us the capabilities that we ask across all of our programs, the SSN-21, improved weapons, other sonar systems, we think we are—and this is a revolutionary submarine—very capable and the exchange ratios that we predict would indicate that, we would be able to carry out this mission, and as long as we can make it as capable as we plan to.

[Deleted.]

Mr. BENNETT. The public would probably say if you had an even number of submarines on their side and our side, that would be a reasonable thing to ask for. You are asking for [deleted].

Is that what you are saying, because you think you are that much better?

Admiral THUNMAN. We believe this submarine is that much better, looking at their capabilities today, measuring the trends, doing the things that our industry know how to do better than they do, and we believe that this [deleted] number is sufficient.

I don't say it is a [deleted] number. I indicated earlier it was [deleted] but I firmly believe with that number of submarines in our force, across this time frame, that we can carry out that maritime strategy, but if we back off, not only in the submarine area or back off in some of the weapons and other support areas, then we will have a lot riskier situation.

Admiral McKEE. Let me add something, Ron. One way to view the effective force level is to consider some could be in shipyards, some not on station, and some available to be on station. Then, Ron and his guys sit down and look at what our submariners have to do, and say, how many boats do we need to do that. They look at our actual exercise experience, where we measure attrition rates and data from working against the other guy to develop real terms to put in those war plan calculations. From this information they come up and say for this range of missions we have to do we estimate we need [deleted].

We have done the same thing nuke versus nuke.

Would you like more? Any military guy will tell you, he would like more.

Mr. **Bennett**. I think you have given me the kind of evidence in this conversation that we need.

Mr. **Sisisky**. The Soviets do have the capability of building more and yet, they are getting better in the nineties, they could knock this ratio out.

Admiral **McKee**. They could build [deleted]. If they do we have a problem, no question about that. You have seen the pictures of Newport News and Electric Boat, together, super-imposed on one Soviet building yard. It is kind of scary.

Mr. **Bennett**. If they thought we were going to go to Star Wars, they might decide to step up their cruise missiles.

Admiral **McKee**. Yes, indeed.

Mr. **Schafer**. What kind of intelligence lead time would we have if they cranked up their submarine buildup program? Don't we get a fairly long lead time?

Admiral **McKee**. [Deleted.] They don't do it like they do at EB. [Deleted.]

Mr. **Sisisky**. This is a minimum amount, and we can't let anything fall between the cracks, as we get into budgetary problems, I assume. Is that the real message? We have got to protect the minimum.

You think that is the barest minimum we have to have.

Mr. **Bateman**. Mr. Chairman.

The Joint Chiefs are saying [deleted] subs, [deleted].

Admiral **McKee**. We need to give you the number for the record, but I think when we refer to those numbers, they are talking about nuclear attack submarines.

Admiral **Thunman**. Attack submarines and the specific mix is not addressed. I have not seen that study in recent months.

Mr. **Bateman**. One of the decisions, of course, we will have to make is the mix of numbers and classes of submarines, and so, I think we will need information along those lines.

Mr. **Bennett**. We certainly will, because there is a big movement to build up the diesels. That is really important because if we come out with a figure of submarines, there are a lot of people who want to build diesels.

Mr. **Sisisky**. Only one person making a movement, and he is going to leave.

Mr. **Bennett**. Very articulate, however. He has a lot of people thinking so, a lot of media support.

Admiral **McKee**. I have never met a guy that wants a diesel submarine who could really tell me just what he wanted it to do—including the gentleman who is leaving.

Mr. **Bennett**. [Deleted] doesn't involve diesel submarines?

Admiral **McKee**. No, sir.

Mr. **Bennett**. If you were going to have a figure for diesel submarines it would be a much larger figure and then couldn't do the things you wanted to do with the submarine?

Admiral **McKee**. Our war plans are NATO war plans, and they were put together on the basis of the NATO submarine force.

Admiral **Thunman**. [Deleted] allied diesel submarines to assist. The number, this 100 number, is qualified by building the improved 688 today, and moving to the SSN-21 in 1989.

Mr. **Bennett**. The number is a quality-type submarine?

Admiral **Thunman**. Yes, sir; if you give us something bigger than our plan, then I will back up, my statement where I said we can prevail.

Mr. **Bennett**. If you had 100 diesel submarines, you would not be in a very good position?

Admiral **Thunman**. No, sir.

Mr. **Bennett**. They couldn't get to where they would need to get. It would not be a winnable situation, if we had nothing but these?

Admiral **Thunman**. Correct.

Mr. **Bateman**. Mr. Chairman, the Joint Chiefs are saying [deleted] total submarines, [deleted] we don't know right now.

Mr. **Bennett**. We know it is not *Tridents*.

Admiral **McKee**. It is not *Tridents*. I believe it is just at any given time, that force level which is the mix of submarines that he has at hand.

Mr. **Bateman**. Is that the number that relates to today or the number that relates to 1990, 1995 or what timeframe [deleted].

Admiral **Thunman**. Mr. Bateman, I would like to take that for the record. I believe it is for today. Each year, that number is refined. I believe there are quality considerations in the number. I have not reviewed it recently.

Mr. **Bateman**. I assume it also has some bearing upon the build rate and type of submarines being built by the other side?

Admiral **McKee**. Yes, sir.

Mr. **Bateman**. I do think we need for the record those kinds of responses that make those numbers mean more to us.

Admiral **Thunman**. Yes, sir.

[The information was not received as of publication date.]

Mr. **Bateman**. Also the mix, the thinking of the Navy, the Joint Chiefs of Staff, SSN's and versus 688's?

Admiral **McKee**. We will also have a mix. We will never have a submarine force of 100 688's. There is always a mix of about four kinds of submarines.

Mr. **Bateman**. In a fairly near timeframe with any of the numbers you are talking about of 688's, we are going to have to make a decision, given appropriations cycle versus number of *Tridents* in any appropriation cycle.

Mr. **Bennett**. They don't do the same thing.

Mr. **Bateman**. I know they don't.

Mr. **Bennett**. I am not saying you are confusing them, but one has a very specific operation in a nuclear war, and the other has to do with a conventional war.

Admiral **McKee**. A fact of life is that within the budget arena in which we operate, they end up competing with each other. That happens—every time somebody gets a good idea to do something new in the strategic area, it comes out of the attack submarine hide.

Mr. **Schafer**. There are rumors about, within the current budget cycle going on in the Department of Defense for next year's budget, there has been a tradeoff for a *Trident* versus attack submarine.

Mr. **Bennett**. We are going to get a *Trident*?

Mr. **Schafer**. And not four attack submarines.

Mr. **Bennett**. From my standpoint that is a grave mistake.

Mr. **Sisisky**. Is that a rumor?

Mr. **Schafer**. That whole process is done behind secrecy and not formally shared with Congress. To the best of my knowledge, that is what I stated as a fact, but I don't have a piece of paper.

Mr. **Sisisky**. If they did cut back and traded off two attack submarines for a *Trident*, or whatever it may be, would that mess up your growth plans?

Admiral **Thunman**. It certainly would. I would strongly recommend against it.

Mr. **Spence**. Mr. Chairman, for a while, we were supposed to build 5 attack submarines a year to reach that 100, considering the boats retiring, and we got way behind on that. We were building one, two a year, and on down the road, we had to start building seven or eight.

I don't know where we are in that respect. We have boats retiring at a certain time. That is a big consideration.

Admiral **Thunman**. This is the plan before you in the 1986 appropriation, and then it goes on out into the extended planning, improved 688 class, and the SSN-21. Across the time and numbers, we reach 100 SSN's.

To get there, then we start bringing pre-688's out of commission along with these other 688's, the ship life is 30 years, but we stay at about our 100 number with this plan.

This buildup of SSN-21's, and that is when he is building up that 1990's fleet. It is important that we have the 688's we are asking for today, so we can go against these eighties submarines that are built.

Mr. **Bateman**. In the bar graph, it contemplates an SSN-21 in 1989 with two improved 688's, and then you move to zero in 1990. Why not another SSN-21 in 1990?

Admiral **Thunman**. For the learning curve.

Admiral **McKee**. We like to have 2 years between the first ship and the second ship. To be sure we have eliminated the uncertainties and corrected any design problems that always go with——

Mr. **Bateman**. Proof of technology is always that important.

Mr. **Schafer**. That practice has been observed in the last decade.

Mr. **Bateman**. In 1991, you got two SSN's, and one 688. I guess you would rethink this whether those numbers——

Admiral **McKee**. Let me answer that again. This submarine is radically different. For example, Newport News is building a land-level facility, and they have to bring that facility on line to demonstrate their ability to build a submarine and get up to volume production, so we think that is a prudent way to build up to capacity on a 2-2-3-4 basis to let the industrial capacity grow.

The reactor core is very powerful and long-lived and extraordinary flexible and hard to build, so we have to build the industrial capability just to build the core.

Mr. **Bateman**. We can do it.

Admiral McKEE. We think that is a prudent buildup rate. We put together something like 1-3-3 and we think that is imprudent.

Mr. BENNETT. The availability for the attack submarine, this would be appropriate time to make an observation about how much we need the *Trident* because this hearing is for all kinds of ships, so I glibly made the observation, I would rather have it put in this than the *Trident*.

I have to take it back. If we have to make a sacrifice, wouldn't it be better to hold on to some of the *Poseidons*?

If we are faced with a budgetary crunch and are not able to do these for a real war which may occur, wouldn't it be better to use some *Poseidons*? If we got to sacrifice, why not go back to using the *Poseidons*?

Admiral McKEE. You ought to get together with the Joint Staffs to talk about this.

Mr. BENNETT. You are my closer connection.

Admiral McKEE. The issue is the mix of nuclear weapons that you need in a strategic arsenal.

Mr. BENNETT. Numbers, my guess is somewhat giving a base—what we really need, if that is the case, shouldn't we really go to getting this 100 submarine fleet and be a little slow about putting into mothballs things that we could use for the strategic thing?

Mr. SCHAFER. From an operational or fleet platform, these *Poseidons* carry the Trident I missile, do you have to replace them from a fleet standpoint, the submarines are getting old, and they are detectable, or is this a matter of the sole matter, the targeting, the Trident?

Admiral McKEE. It is a mix of things. You have no *Trident*-equipped SSBN's scheduled to be laid up soon, only *Poseidon*. Ron is working within a full panoply of budgetary pressures, and requirements pressures for what kind of missiles to keep on line. [Deleted.]

That is what we are buying. There is really not an easy answer.

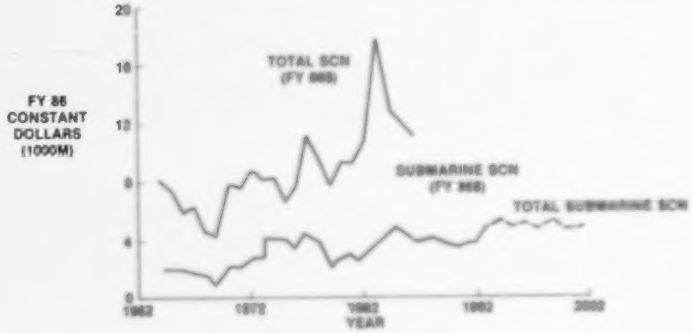
Mr. SISISKY. Without prejudice, do we need land-based missiles in the continental forces? I say that in all honesty. I know they are lifting the technology from the MX. I just wonder why we need land-based missiles when we have the platforms under the sea?

It is some way that they are discovered from the sky? I said without prejudice. I know that is hard to do.

Admiral McKEE. I don't think we want a single strategic weapon. I don't think we want to be in the position the French where we have only a sea-based deterrent.

If we can afford it, it is useful from a military standpoint to have land-based missiles, sea-based missiles and bombers. This requires the defending nation to maintain a wide range of forces, and research and development. He can't focus on one thing. If he had only the sea-based force to worry about the entire Soviet production could focus in on to worry about submarines, and they could crank up the production rate. They could say, "Look, we don't have to worry about anything on land now, so let's build 500 attack submarines and fill the oceans with them. We will put the sea-based deterrent at some risk—we can't afford to do it now, so you really do need more than one force. Whether you need two or three or what the mix is, I am not competent to discuss, but in my opinion it would be a mistake to go down to a single system.

SSN 21 IS AFFORDABLE



- SSN CONSTRUCTION COSTS
  - CONSISTENT WITH COST TO MAINTAIN 600 SHIP NAVY
  - FIRM CEILING FOR SSN 21
  - PRODUCIBILITY GAINS
- LIFE CYCLE COSTS MINIMIZED
  - MAINTAINABILITY IMPROVEMENTS
  - ENGINEERED OPERATING CYCLE

Admiral THUNMAN. Maybe this would be a good time to look at the SCN funding, past and future. This is the total SCN funding for the Navy, constant 1986 dollars, going back to 1962. We pick up the total SCN here in 1962, and so you see the history, again, constant dollars, and this dotted line here is 1992, and when we will have a Trident force, if we continue with the plan of 1 per year for 20 Trident submar

I am not saying we are not going to go beyond [deleted] that is the President's decision.

Mr. BENNETT. Not all to the President. The Congress is sort of a check on it. All the way along, I have asked how many *Trident* submarines and I have had difficulty getting a finite figure, but we shouldn't get into drifting a lot if we don't need them.

Admiral THUNMAN. When we have [deleted] we will have reached about the limit of our bases.

Mr. BENNETT. We thought that was enough. Nobody ever really did give me a figure they are going to cut off altogether, but nobody ever said more [deleted]. I don't think.

Admiral THUNMAN. On the basis of our design for [deleted] submarines [deleted] some will be in the shipyard, [deleted] this share of the SCN, considering what has gone on in the past, is an affordable share, when you are considering buying the attack submarines that we are asking.

Admiral MCKEE. Mr. Sisisky made the point. How many Tridents do you need to build, much will be influenced by the decisions made in the other strategic areas, and by arms control.

Mr. BATEMAN. And arms control.

Admiral MCKEE. I sort of left my track here. Would you like me to go back to it?

Mr. BENNETT. I don't want to give you the impression I don't want to build any more Trident submarines or anything like that. I just think we have a shortage of attack submarines which might have to be used in a war. We are not planning to have a nuclear war. We are planning to deter a nuclear war, and if you could deter them with *Polaris* temporarily while you build what you need of these other submarines it would seem to me to be wisdom when we do it.

Admiral McKee. The other thing is we have to think about how much it costs to do these things. We pay a terrible premium when the building program varies all over the place.

Mr. Bennett. That is true.

Admiral McKee. The industrial base gets all out of whack. We pay too much for one, then when we try to get the production base back up again, it all falls out the bottom again.

Mr. Bennett. That might be one of the reasons why they are going to build one *Trident* in that year.

Admiral McKee. What we would like to do is settle down and decide that submarines are important; that submarines are a national priority, that we are going to continue to build them, and we are going to quit this vacillation.

Mr. Bateman. Mr. Chairman, could I revisit?

Mr. Bennett. We will let him get on.

Mr. Bateman. I hate to do this.

Admiral McKee. That is all right.

Mr. Bateman. I want to turn to the HY-130 steel.

Admiral McKee. Yes, sir, me too.

Mr. Bateman. Maybe we are working in the same direction then. Why not a more intensive and even if it costs more dollars, expedited availability of that material for our submarines? Might it not be more cost effective, given the additional depth and other capabilities, the elimination of the need for *x* number of additional submarines?

Admiral McKee. We ought to do it as soon as we can. Ron is the program sponsor for that. He is dealing with a $1 billion bogey this year, in trying to formulate his budget, and when he did his priorities he elected to postpone completing development of HY-130—and none of us like it. I have been grumbing at him, but he is the guy who has to make the decision. He elected to put off that qualification. I think the money is in the 1988 year now.

Admiral Thunman. We are talking about the budget that we really shouldn't be talking about over here, but clearly we are not bringing, in my view, the HY-130 into this project as soon as we could. It is a budgetary constraint.

Admiral McKee. It is a budgetary issue and it's peanuts in this budget, $50 million, in this kind of budget.

Mr. Schafer. That is a one-time cost?

Admiral McKee. Yes, but over about a 3-year period.

Mr. Schafer. We pay that every year?

Admiral McKee. 3 years.

Mr. Schafer. One time, pay it up, we are done with it.

Mr. Bateman. $50 million one time, one appropriation to be spent over 3 years.

Admiral McKee. It's divided over 3 years.

Mr. Bateman. $16 million a year.

Mr. Sisisky. And the cost of the ship is $1 billion what?

Admiral McKee. The prototype is $1.6 billion and the follow-on ships are $995 million.

Mr. Schafer. We had about $600 or $700 million associated with submarine R&D in the 1986 budget, and to some extent all of that is related to the SSN-21.

Admiral McKee. You will have to answer that, Admiral Thunman.

Mr. Schafer. I am not trying to nail the number, just the relationship. What we are talking here is $15 million and maybe one-third of it would be required in 1 year, so somehow you are making a priority judgment that all of that other submarine R&D is more valuable, that is, $600 and some odd million, the submarine is more valuable than spending——

Mr. Bennett. $50 million, not $15.

Mr. Schafer. $15 million for 3 years. What you are going to get out is more valuable than kind of taking this step to be able to build a deeper diving submarine.

Admiral Thunman. Yes, sir, that is the decision that came forward with the Navy's budget. Now, is that a decision that I made personally? Did we say, OK, at this point these are the things we are going to do, we are not going to do that? There are a lot of other considerations, other people involved. But the single sheet characteristics of this submarine, which is what I deal with, showed that [deleted] was adequate to carry out its mission. I was unable to convince those who make the decisions on the balance of the budget that we should put money to go down [deleted] in the 1986 budget before you.

Mr. Bateman. Mr. Chairman, could I ask a question there?

If we spent the $50 million over 3 years, and even if as none of us would desire there was some delay or stretch out on the SSN-21, wouldn't we have a steel with which to build that additional number of 688's, and wouldn't it be useful in the 688 to have that?

Admiral McKee. No, sir; it would not. We would have to redesign the 688 hull completely.

Mr. Bateman. That would do you no good?

Admiral McKee. It would do us not good in the 688.

Admiral Thunman. In our tentative planning we are looking at the day of bringing the HY-130 into the 1993 authorization. Again, I am talking about my planning now.

Admiral McKee. Perhaps we should reply to you for the record when is the earliest it would come along, if we found the money. Would that be all right?

Mr. Bennett. You continue now.

Admiral McKee. I just wanted to add one more thing while we are still talking about displacement. Remember, we were talking about the *Alfa* submarine. I was asked if the new SSN should be of titanium. We frequently are criticized. These figures are only rough approximations. This is a little complicated, but if I want to take a submarine that is [deleted] I have to increase the displacement of the submarine from [deleted]. A submarine is a blimp, and the heavier the hull the more volume I must hold up. If I change to HY-100, I can do the same thing with about [deleted] but if I can get the HY-130, I can do the same thing with a little over [deleted]. The important thing is that the difference between using HY-130 and titanium is only [deleted]. That is a big deal, it would cost about twice as much to build the submarine with titanium than with HY-130.

The Soviets call *Alfa* the Golden Fish, the most expensive submarine in the world. They paid the extra price for titanium. What does it save in displacement? About 500 tons. We would like to be able to use titanium. But HY-130 is the right thing for us to do in our Navy with our resource situation, because of the force level numbers that you are talking about. That is what we are out to do.

Now, I talked about the propulsion plant so I won't spend a lot of time on it, but what I am talking about now are technologies. I will go through this briefly. These are standard characteristics for any propulsion plant, and they have to be taken into account, but we also have to take into account the special nuclear requirements. This boat is going to operate in your district, and it could ruin your whole day if we made a mistake. So what we have to do is build it to control itself. We don't want to depend on automatic controls.

Mr. BATEMAN. Admiral, that is worse than that paint.

Admiral MCKEE. That is right, by some margin. The Soviets don't follow those same rules. I showed you this the last time we met. They have had problems. If I had anything even remotely approaching those kinds of problems, we would be in the same shape as Three Mile Island, and the Navy's tactical and strategic character would be entirely different. We have to do those things that preserve our ability to operate safely. Within those parameters, then, these are the principal improvements we are putting in the plant.

I am going to talk about those briefly. It is going to be quieter, more power density. By that, I mean it is going to have more power within about the same volume and weight. It is going to be tougher, and the ship and the propulsion plant will be easier to build.

Now to put in perspective the task in quieting. Basically, if I am going to generate at [deleted] reactor power [deleted] I have got to design the plant so that [deleted]. That is a monumental engineering task, but we know how to do it. Keep that in mind. Remember, 746 watts is 1 horsepower.

This is what we intend to do. In the 688 we have a [deleted] shaft horsepower plant that weighs [deleted]. In the new boat we are going to have half again as much horsepower with only a [deleted] increase, [deleted] more power for a [deleted] increase in weight. That is not easy.

Now, we will fundamentally draw on new technology that we have, and on our experience. It is a molding of the new stuff with the old stuff to get the best performance while not throwing out the baby with the bath water in terms of safety and performance. It's a pressurized water reactor. When a new submarine comes along, the town is always full of reactor designers. We have met them all. They all say, "Gee, there goes McKee building the same damn thing." In fact, it's not the same thing. I am not going to go through it but this is a list of the things I must develop just for the reactor plant to bring it to fruition in time.

Remember my illustration, if I could invent a magic garbage can that would give me [deleted] in a 688 and put it in the ship and eliminate the reactor, I would save about [deleted] and increase the speed [deleted] so the solution does not reside in strange and wonderful phenomena in the reactor. It resides in tough engineering piece by piece, but even so, one of the things that folks say is, "McKee, all you do is build pressurized water reactors just like Admiral Rickover. You guys are both stodgy." Admiral Rickover looked at them—and I have too—all of these ways. There are over 10 different other theoretical ways to build a reactor for a submarine. One not theoretical. We have built liquid metal. The Soviets are alleged to use [deleted] will contain more reactivity than all of the reactor coolant in all of the propulsion plants in our whole Navy. Deal with that problem; in your district.

Helium gas reactors. If a submarine gas reactor were to lose its pumps, it would begin to melt the core in something like eight seconds—in your district. Thermionic. We have looked at that, the heat to make electricity.

Magnetohydrodynamics we have looked at extensively. This is the technique that Capt. John Moore says the Soviets are using. [Deleted.] The maximum thermodynamic power that has been generated anywhere in the world is something on the order of [deleted]. What has been done is a huge outfit, big heavy shore-based operation.

These are the other things we have also looked—integral plants, that is, putting everything in the same pot. We have looked at boiling water, the sort of thing that commercial industry uses. I will just show you these and take them off. I came prepared to talk about them, but will put them in the record if you desire. But each has crippling features in our application, in our country, in our way of life, with one of your sons running it.

All our work is not just in the reactor plant development. I said the way we get where we are going is like a jigsaw puzzle, with development elsewhere. We have got to do major things in the steam plant and develop a [deleted].

Mr. BENNETT. That is the real size?

Admiral McKEE. [Deleted.]

Mr. BATEMAN. Does that buy us lesser RPM?

Admiral McKEE. [Deleted.]

But there is a lot of very difficult work to do, and it's not just in the propulsion plant. The ship, weapons, fire control, you talked about firepower, and quieting. These things have all got to be done. We are on a tight time scale to do it, but we must, and we can, and it will work.

Now one other factor in the issue is vulnerability, to nonacoustic detection. There are those who would have us believe there is a breakthrough coming. Everything is going to be different and the submarine is too big. I used to be the officer in charge of nonacoustics when I was on the CNO staff—I had been in business for 20 years before I got this job. We have looked at everything that makes any kind of sense and many that don't make any sense. This is just a summary of the Navy's efforts in these areas, and they are categorized conventional. [Deleted.]

The ocean turns transparent every year at budget time, as you well know. One of the most widely publicized is in the Air Force Journal—the notion that radar can fly over, look down, and see submarines. In fact, we flew such a radar sometime ago. People got all excited, because the radar looked down and saw the ocean bottom. Everybody said if it can see the ocean bottom, why can't it see a submarine? Good question. So we took all the radar pictures this device took off the ocean, and sure enough it saw the bottom in some places. I will explain what I mean. A radar looking at the ocean sees the bottom. If it sees the bottom, why can't it see a submarine? But this is shallow water. What it sees is changes in flow over large bottom features in relatively shallow water. We kept looking. We took all the pictures, and we called in all of the data from all the logbooks of every submarine that was at sea at the time this thing was up. We said, all right, let's look at the ocean in a picture taken with this radar and find out whether there is a submarine there. So here is a picture of the ocean. You find the submarine.

Mr. **Bennett**. It is right there.

Admiral **McKee**. I have shown you this before.

Mr. **Bennett**. Yes, I know.

Admiral **McKee**. It is right there. Where is the submarine? That submarine is at [deleted].

Here is another one at [deleted].

Mr. **Bateman**. Where is the submarine?

Admiral **McKee**. This isn't theoretical. Most of the arguments you hear are theoretical.

Mr. **Bennett**. What is this telling you?

Admiral **McKee**. This tells me that the notion that you can find a submerged submarine with side-looking radar from space is wrong.

Mr. **Mansfield**. At that frequency?

Admiral **McKee**. Any frequency.

Mr. **Mansfield**. It doesn't make sense.

Mr. **Bustamante**. You truthfully have to say the data isn't in. There are not enough experiments.

Admiral **McKee**. A lot of experiments——

Mr. **Bustamante**. Everybody agrees.

Admiral **McKee**. But the fundamental problem is that a side-looking radar, whatever the frequency, has to deal with the motion of the environment, [deleted] in the noise. Changes in the frequency will affect the process, but it doesn't affect the fundamental physics of the problem. Even having said that, we still ought to spend the time to figure it out. We ought to nail it. We ought to spend the time to nail it.

Mr. **Bennett**. To nail what?

Admiral **McKee**. To verify that there really isn't, some different frequency, that will make it work. We need to run all of the experiments we can possibly run to make sure that there isn't something we have overlooked, but so far there has been no light at the end of this tunnel—at all.

Mr. **Spence**. If that is correct in the radar department, how about the color of the water and those kinds of things?

Admiral **McKee**. We tried bioluminescence, and that only works at [deleted]. We have tried laser, and [deleted]. You can use it for communications, [deleted]. The point that I would make, because it is getting late, is that we have taken this whole panoply of things and measured this submarine design against it, to make sure that we have not included some sort of unexpected vulnerability in the design.

Mr. **Bennett**. Somebody wrote me a long time ago about painting a submarine that they would not be very observable.

Admiral **McKee**. We paint them with camouflage paint.

Mr. **Bennett**. I don't mean that. I wrote the Navy about it but I didn't want to know about it. Since you are here, I would like to ask you, you don't know of anything like that?

Admiral **McKee**. No, sir; I don't know of anything like that. We are putting [deleted].

Mr. **Bennett**. I turned this over to the Navy.

Admiral **Thunman**. I believe we looked into that, Mr. Chairman. We do have a program [deleted].

Mr. **Bennett**. That is the sort of thing.

Admiral **Thunman**. And we have a program.

Mr. **Bennett**. You are doing the best you can but it doesn't exactly make it invisible?

Admiral **Thunman**. No submarine is invisible when it is close to the surface. At periscope depth, with the periscope up or within 10 feet of the surface.

Mr. **Bennett**. I understand. Of course, that is going to be true with this [deleted]. It won't really be invisible. [Deleted] it will be able to be seen.

Admiral **Thunman**. [Deleted.]

Mr. **Bennett**. It boils down to if they use proper tactics in the use of the submarine, there isn't any reason why the submarine should be endangered by overflight observation?

Admiral **McKee**. That is correct.

Mr. **Bennett**. Obviously on the surface it is going to be observed. But if it gets down to reasonable depth, it is not?

Admiral **Thunman**. Yes, sir.

Admiral **McKee**. It is up to the guy.

Mr. **Bennett**. The commanding officer.

Mr. **Bateman**. Mr. Chairman, could I return to the detectibility thing.

Admiral, I am very comforted by what you have said, that there is no great breakthrough, but of course I have to be concerned to some degree as to whether or not there may be one. We just don't know what it is, because it is at some point beyond our known technology. Are we investigating everything, every lead, every possibility?

Admiral **McKee**. Yes, sir.

Mr. **Bateman**. Of that kind of a breakthrough?

Admiral **McKee**. We are expending an extraordinary amount of effort and not an inconsiderable amount of dollars on everything that we can find. Some of these are in highly classified areas, for obvious reasons.

Mr. **Bennett**. Is there anything you want to add to what you have said about the number of submarines we have? This thing is looking into mostly the number.

Admiral **McKee**. Yes, sir, I understand. The only reason I am dwelling on the boat is I want to convince you that we really know what we are doing.

Mr. **Bennett**. I understand. I am really not trying to cut you off. Although time is getting close.

Admiral **McKee**. I am at about the end.

Mr. **Bateman**. One last thing on the detectibility. What is the basis for the kind of rumors—and I have to call it basically that—there is this breakthrough in technology and that our subs are detectible? What is source of that?

Admiral **McKee**. The basis is what I just showed you.

Mr. **Bennett**. There has been a lot of stories written about it.

Admiral **Thunman**. I would like to answer that. You know we have an SSBN security program. I think we are asking for about $50 million from you in 1986 to investigate everything feasible in the area of physics for submarine detection, as well as to investigate everything we know from our intelligence, and to make sure we go down each path. You saw earlier where people can make outlandish speculations without technical basis. We are unable to respond to many of those, because our information that we are privy to is highly classified. But I believe many make this statement with no foundation, and are required in no way to prove——

Mr. **Bennett**. There were a few things that surfaced which were kind of interesting that not many people had thought about, like, for instance, [deleted].

Admiral **McKee**. Oh, sure.

Mr. **Bennett**. Well, most of us never thought about that, and that shocked a lot of people to think it was so, and you [deleted]. That is a new thing. A few little things like that were put together and articles were written to indicate that there we are very much more vulnerable than we are. He has assured you we are not really that vulnerable as far as he knows.

Mr. **Bateman**. Is there a possibility of some Soviet disinformation here to force us to spend a lot of money and to look at things?

Admiral **McKee**. I don't think so. Remember what I said. The [deleted]. It's also trying to find something that is in motion in an environment that is in motion and clouded by motion within the moving environment, so the processing challenge to get it up to something that is recognizable in theory up to the order of [deleted]. That is a lot because 1 decibel is times 10. But you sit down and say: "I am a Soviet, and the Americans continue to elude us. We have done the best we can and nothing works. They operate with [deleted] in the [deleted] anywhere they want to go, and we can't do anything about it, so I want to spend all it takes on any notion that might work."

They have spent extraordinary amounts of money on detecting [deleted]. It doesn't work against us. We are delighted that they are spending all that money on that technique, [deleted].

I think it is a matter of, "Hey, we better just do everything we can."

Now, our war is a defensive thing. One of the things that would be interesting for you to think about a little is who are the people that are asking for all the money to do the research for ways to find submarines. There he is. We are not hiding anything. For the last 20 years, people in our Navy have been searching into every avenue that we could find that makes sense—or doesn't make sense—or might make sense, because we are the guys that are going to have to deal with it if there is something there.

Let me tell you—we didn't treat this subject lightly. Ron and his guy—what did it take you, 6 months to analyze the world's——

Admiral THUNMAN. Yes.

Admiral MCKEE. Every submarine operation in every corner of the world. A big pain in the neck, because we knew what the answer was going to be, but we had to go through that discipline. Nobody made you do that. That is just something he did in his security program.

Admiral THUNMAN. But we have a lot of oversight. This is just not my program. We have the best scientists in this country who provide oversight. [Deleted.]

Admiral MCKEE. [Deleted.]

Admiral THUNMAN. [Deleted.]

Admiral MCKEE. [Deleted.]

Admiral THUNMAN. If you went back, you would see we probably spent—and this is ballpark [deleted]. I am not saying that that was not well spent. What was well spent, we must stay ahead, because we are talking about our strategic submarine force, very valuable to our country, but we really looked hard and must continue to look hard at all area with this program. I believe—this is my firm belief based on a large number of programs that we look at, [deleted].

Admiral MCKEE. And the interesting thing, of course, is we are still being beat about the head and ears about that [deleted].

Admiral THUNMAN. I was there.

Admiral MCKEE. That is right, you were there, and about three or four times a year we have to respond to somebody who says, "We know they have got this thing because we know it happened out there." [Deleted.] So we are stuck with this kind of bunk—it just floats around in the public domain. We must depend on you all to weed it out and deal with it.

There is another aspect of the problem in considering detection of submarines. Let me talk about the Trident submarines.

There is an annual argument whether the sea-based deterrent is vulnerable or not. But even if you could invent a practical system that will search the ocean at [deleted] in an airplane we have not yet invented—it would still have to find 20 submarines out in the ocean all at once. We did an analysis of that concern—first strike. Can they find our submarines, hit them all at once? First strike.

Let's hypothesize something that will do that. How many of them would it take to bring to risk, that is, simultaneously to risk, the whole force. It took [deleted] of airplanes and bases—in some place where you couldn't even have bases. We said, "OK, it won't work for 100 percent. Let's have 75 percent that might be a good first strike." Take that number. It still doesn't work, 50 percent, it becomes ridiculous. So it is not just a case of a thing that might find a submarine sometimes. The issue is things that can find lots of submarines simultaneously.

Mr. BENNETT. So the key, the weakness in this is where your submarines are at any particular time?

Admiral MCKEE. Where they are, where they move.

Mr. **Bennett**. [Deleted] so that is something we have got to think about. [Deleted] and so eventually if you really are worried about a war, [deleted].

Admiral McKee. What I am saying is this is a tactical as well as a technical problem, and the tactical may even overshadow the technical whatever the device, it has got to work in cold water, hot water, Gulf Stream, ice, everywhere.

Mr. **Bateman**. In the context of the alleged Walker spy rings, and compromises of our security, their counterespionage, where are we in terms of the security of our communications as a link by which our submarines——

Mr. **Bennett**. Mr. Bateman, we are going to have hearings about what happened in San Diego, or wherever it was. I am not trying to cut you off, but I do think it is getting kind of late.

Admiral McKee. I am through. If you are happy, I am through.

Mr. **Bennett**. Why doesn't everybody try to restrict themselves to about two questions. If you want to ask two questions. I hate to cut you off, but I have relly got to go. Has anybody else got any further questions?

Mr. **Sisisky**. Were you really the technical adviser, on Red October?

Admiral McKee. No, sir.

Mr. **Mansfield**. An observation rather than a question. One of the reasons we will be raising the issue as to the vulnerability of submarines is that the Soviets have such a large program. That has become more widely known than it was. I guess the logic is if they are expending so much money shouldn't we be worried about it.

Admiral McKee. We should worry about it and we do. Don't get me wrong.

Mr. **Bennett**. I think you have made a fine presentation, but unless there is something else somebody wants to bring up, we will adjourn.

Thank you.

[Whereupon, at 4:30 p.m., the subcommittee adjourned.]

THE 600-SHIP NAVY

House of Representatives,
Committee on Armed Services,
Seapower and Strategic and
Critical Materials Subcommittee,
Washington, DC, Friday, September 6, 1985.

The subcommittee met, pursuant to call, at 10 a.m., in room 2118, Rayburn House Office Building, Hon. Charles E. Bennett (chairman of the subcommittee) presiding.

STATEMENT OF HON. CHARLES E. BENNETT, A REPRESENTATIVE FROM FLORIDA, CHAIRMAN, SEAPOWER AND STRATEGIC AND CRITICAL MATERIALS SUBCOMMITTEE

Mr. Bennett. The subcommittee will come to order. This morning the subcommittee continues its series of hearings on the 600-ship Navy. To date, the committee has heard from senior Navy civilian and military leaders on the need for a 600-ship Navy and plans for its execution. In addition to a fine opening hearing with Secretary Lehman, Admiral Watkins, and General Kelley, the committee has received detailed, classified briefings on Navy strategy and operational plans, as well as specifics on submarine warfare and the role of the forthcoming SSN-21 attack submarine.

During today's hearing, the committee will hear testimony from a variety of Government and public witnesses who have studied the Navy's strategy and procurement plans and found items for question and concern.

Some, for example, have questioned the soundness of the global maritime strategy as described by Navy Secretary John Lehman. Others have raised concerns about the affordability of the Navy's shipbuilding and procurement plans.

Still others have taken issue with the Navy's plans for buying specific kinds of ships. The committee's intent is to learn more about these divergent points of view on the proper size and composition of the fleet.

We feel that we can get information from the general public that will be very helpful to us in approaching the question of what type of Navy we ought to have.

Because we have a large number of witnesses today, the committee request that each witness make a brief statement and then respond to questions. The complete text of prepared statements will be entered into the record.

Congressman McKernan has indicated a desire to submit a statement for the record of today's hearing. The hearing record will remain open for 7 days to receive any additional statements from members on the subject of the 600-ship Navy.

Prepared Statement of Hon. John B. McKernan, Jr., a Representative From Maine

Mr. Chairman, I appreciate the opportunity to submit testimony on our nation's goal to have a 600-ship Navy. I continue to support this goal, as I believe it is crucial to our national defense and our foreign diplomatic efforts.

A 600-ship Navy provides minimum levels of acceptable security to meet our national defense needs. The availability of that many vessels with varying capabilities is essential given the wide range of incidents that occur across the globe. The U.S. Navy must be able to respond to these events. The rapid mobilization of a fleet and a "show of the flag" can often temper "hot spots," preventing incidents from escalating into major military encounters. This unique quality of the Navy makes it an effective diplomatic presense in peace time, and a responsive military force in periods of armed aggression.

As we strive to achieve a 600-Navy, we should ensure that quantity does not preclude quality. Competitive construction and overhaul programs are vital if our national security objectives are to be fully realized. A commitment to supplying the U.S. Navy with the best-built ships in the world is of primary importance.

We should realize that the Navy's ability to defend our nation is vitally linked with other resources—specifically, manpower, experience, and technical capabilities—that make possible a viable U.S. naval force. Without a high-quality, trained work force and the industrial facilities required to construct and service today's advanced ships, it will be difficult for our Navy—regardless of its size—to be effective in times of adversity.

Clearly, in seeking to rebuild our maritime forces, we must not lose sight of the important role U.S. shipyards play in preserving our national security, and the necessary requirements for supplying our naval forces as they circle the globe. It is a well-known fact that during the Falkland Islands crisis in 1982, the British Navy used two supply ships for every gray hull involved in the conflict. Today, U.S. merchant ships cannot even match their naval counterparts one-to-one.

I direct the subcommittee's attention to these brief facts as a way to underscore the problem of concentrating our objectives solely on the number of vessels and the amount of fire-power at our disposal, without considering the dual concerns of maintaining a competitive shipbuilding industry, and improving our overseas logistical support system. Without these two crucial elements, I believe any naval force will be vulnerable.

A 600-ship Navy comprised of state-of-the-art vessels and supported across the oceans with an effective and efficient transport system does, indeed, represent the cornerstone of our defense.

Once again, I appreciate the opportunity to speak on behalf of a 600-ship fleet for the United States Navy.

Mr. Spence, do you wish to make a statement?

Mr. Spence. No.

Mr. Bennett. Our first witness this morning is Dr. Eric Hanushek, Deputy Director of the Congressional Budget Office. Dr. Hanushek, you may proceed.

STATEMENT OF DR. ERIC HANUSHEK, DEPUTY DIRECTOR, CONGRESSIONAL BUDGET OFFICE, ACCOMPANIED BY ROBERT F. HALE, ASSISTANT DIRECTOR, NATIONAL SECURITY DIVISION AND PETER TARPGAARD, PRINCIPAL ANALYST

Mr. Hanushek. Thank you, Mr. Chairman. I have Robert Hale and Peter Tarpgaard who are joining me from the CBO office today.

Mr. Bennett. Glad to have you present.

Mr. Hanushek. Mr. Chairman, the Congressional Budget Office [CBO] appreciates the opportunity to testify today on the costs of attaining and sustaining the 600-ship Navy. I have submitted a more complete statement, which I will submit for the record and try to shorten it today.

When the current administration assumed office in January 1981, it established the objective of building up the total number of the Navy's battle force ships to over 600 by the end of the 1980's. This numerical goal was a shorthand for more specific force structure and modernization goals, such as increasing deployable carrier battle groups from 12 to 15—with a comparable increase in aircraft to fly from these carriers—and expanding the number of nuclear attack submarines.

The ensuing expansion has raised concerns about the budgetary implications of attaining and maintaining such a force, and the concerns could be well-founded. From 1980 through 1985, the Navy's total budget grew at a real (that is, inflation adjusted) rate of 7.5 percent a year. Over the next decade, CBO estimates that the Navy's budget would have to increase at a real rate of between 3 percent and 5 percent a year to meet all of the Navy's goals. Such sustained growth, while clearly not impossible, would be unprecedented in peacetime and, in constant dollars, would lead to a doubling of the Navy's budget between 1980 and 1984.

My testimony today will describe CBO's projections of budgets needed to meet current Navy goals. These projections are contained in CBO's just released study entitled, "Future Budget Requirements for the 600-Ship Navy." Then I will outline several strategies that accommodate lower growth in the Navy's budget, should the Congress find that necessary. Each of these strategies, however, would provide a different Navy and, quite possibly, one that is less capable than the version currently planned.

FUTURE NAVY BUDGET COSTS

The Navy should meet its 600-ship goal by about the end of this decade. Attainment of 600 battle force ships does not, however, fulfill all the administration's naval goals. Still higher levels of shipbuilding would be required to achieve force structure and modernization goals beyond the general objective of 600 ships.

These include obtaining 15 deployable carriers and the modern escorts to accompany them, increasing the number of nuclear attack submarines from 90 to 100, expanding amphibious lift capability by 50 percent, and continuing to replace ships with more modern—and more expensive—versions. CBO estimates that these goals will require continued real growth in the shipbuilding and conversion budget, averaging at least 5 percent a year into the mid-1990's.

In contrast to the 600-ship goal, requirements for expansion and modernization of Navy and Marine Corps combat air forces probably will not be fully realized over the next 5 years. The Navy plans to increase the number of carrier air wings in the active-duty Navy from 12 to 14 to complement the expansion of deployable aircraft carriers to 15, and to alter the composition of its air wings toward having more medium attack aircraft, the A-6.

Navy plans submitted in February 1985 suggest that by 1992—when all the aircraft purchased over the next 5 years will be operational—the Navy will still be short 366 aircraft of 9 different types, although it will have an excess of 239 aircraft of 5 other kinds.

To rectify these problems and meet current goals for expansion and modernization, aircraft budgets would have to increase through 1990 by at least 6 percent a year after inflation; following the buildup, sustaining budgets would fall below 1990 levels but would still remain about 19 percent above the 1985 level.

The cost estimates just described assume no growth beyond today's levels in the real unit costs of ships and aircraft. The Navy has recently held down unit cost growths, sometimes even achieving reductions. Over the long run, however, unit costs have increased faster than inflation because of improvements in the weapons systems and other factors. Ships built in the 1960's and 1970's displayed average unit cost increases of about 3 percent a year above the rate of inflation. Unit costs of aircraft purchased since 1980 have increased at a rate of 3.8 percent a year. If such increases recur, then the costs of meeting goals for ships and aircraft would be higher than those estimated above.

OTHER COSTS

Shipbuilding and aircraft procurement make up about 24 percent of the Navy's 1985 budget. The Navy budget must also cover investment costs for research and development, munitions, Marine Corps equipment, military construction, and so forth. In recent years, these costs have typically consumed an additional 22.5 percent of the total Department of the Navy budget, and CBO assumes they remain at that level in the future.

The Navy must also pay for important support costs—mainly the appropriations for operation and maintenance and for military personnel. Because of the difficulty in relating support costs to readiness—and hence, in knowing how much, support is needed—our analysis relies upon three alternative projections to bound the plausible range of future support costs.

ALTERNATE ASSUMPTIONS

Alternative assumptions about key budget factors lead to a range of estimates for future Navy fundings needs to meet its current ship and aircraft goals. The lower end of the range of estimates assumes no future real growth in unit costs of weapons and the lowest of the support cost estimates used in the study—roughly 1 percent annual real growth in support over the next 10 years.

These assumptions would still imply real growth in the total Navy budget averaging 2.5 percent a year for the next decade. The upper end of the range assumes 3 percent real growth in unit weapons costs, consistent with longer run history, and more generous support funding, growth of about 3 percent a year. This leads to average real growth in the total Navy budget of 5.1 percent a year. The middle range, which yields real growth of 4.2 percent a year, assumes growth in unit weapons costs and the middle of the study's three projections of support costs.

The summary figure on page 7 of my testimony plots the projected budget requirements through fiscal year 1994, together with actual appropriations for the Department of the Navy from 1962 through 1985, adjusted for inflation.

The Navy budget was remarkably stable during the 1960's and 1970's—apart from a modest increase during the Vietnam war years—with no sustained period of real growth exceeding 3 years. The results of CBO's analysis, however, indicate Navy budgets would have to double the 1960's to 1970's norm before they begin to level off again in the mid-1990's.

STRATEGIES TO ACCOMMODATE LOWER NAVY BUDGETS

Although Navy budgets could expand enough to accomplish all current goals, recent limitations on overall defense budget growth suggest that the Navy might have difficulty achieving these sustained increases. Accommodation to limitations on overall defense budget growth would be more efficient if a strategy were developed well in advance. To illustrate possible effects on the Navy of budgetary limits, CBO considered three different ways to hold Navy expenditures to zero real growth over the next 10 years. That would mean spending about $250 billion less over those 10 years as compared with roughly 4 percent annual real growth, which is the middle of the range of estimates discussed above. I want to emphasize that the choice of zero growth is arbitrary and constitutes no recommendation on our part. It simply allows concreteness in our assessment of needed changes in plans to accommodate lower budgets. Nor are the strategies discussed below exclusive or exhaustive; rather, they suggest basic modes of emphasis.

Strategy 1 would emphasize cuts in investment to be achieved by accepting either a smaller or older Navy. This strategy assumes that 80 percent, or $200 billion, of the reduction needed to achieve zero real growth would come from the investment accounts.

Assuming a proportional reduction in the number of ships procured, a total of only 151 ships would be authorized contrasted with the 216 CBO estimates would be needed to meet current force goals during the 1986–95 period. Thus, assuming no change in ship retirement plans, a fleet totaling about 600 ships in 1990 under Navy plans would settle back under strategy 1 to about 535 ships by the end of the 1990's.

If, however, the numbers of new auxiliary and support ships were reduced more than proportionately in order to protect the procurement of more expensive combatants, then the reduction in numbers of ships would be still higher. Zero real growth for a period of 10 years, therefore, could result in a fleet numbering much closer to 500 than to 600 by the end of the century.

Aircraft procurement would be similarly affected. Under this strategy's assumptions, a reduction of $51.0 billion in aircraft procurement would occur over the 10-year period. This could lead to about 2,000 aircraft—again, assuming a proportionate reduction—compared with the 3,000 estimated by CBO as necessary to realize force goals.

The effect of such reductions in the numbers of ships and aircraft in the fleet might be mitigated by keeping ships and aircraft in the fleet longer than current practice. This could maintain the numerical size of the fleet at higher levels but would not, of course, accomplish fleet modernization.

Unfortunately, there are no comprehensive measures of effectiveness to suggest how much a strategy would harm naval capability. Clearly, though, having fewer ships and aircraft would degrade U.S. capabilities below the levels judged necessary by the Navy.

Strategy II would achieve zero real growth primarily through reductions in support costs. Many believe that, because of the difficulty of altering investment plans, reductions in support are a likely way to achieve savings. It certainly might be possible to achieve some efficiencies in support expenditures. The Navy has already sought efficiencies to hold down the number of personnel it needs, and more of these and other types of efficiencies might be possible.

On the other hand, it is unlikely that the support accounts alone could provide enough spending reductions to accommodate budget deficiencies of the magnitude assumed under zero real growth. In 1980, when the fleet was smaller, support budgets were almost unaimously believed to be inadequate. Yet, even if all growth in the support budgets since 1980—except that which offset inflation—was removed and no further growth was allowed, only about $186 billion of the required $250 billion would be eliminated. Cuts in support funding, therefore, could contribute to making up budget shortfalls; but, except in cases of relatively modest deficiencies, they probably could not carry the full burden.

Like Strategy I, which leads to a smaller or older Navy, Strategy III would absorb most of the budget deficiencies in the investment accounts, but it would maintain fleet size by developing less expensive ships, aircraft and weapons.

A Congressional Budget Office report, "Building a 600-Ship Navy: Costs, Timing and Alternative Approaches," published in March 1982, illustrates this approach for ships. That report examined alternative 10-year shipbuilding programs in detail and found that incorporating lower cost ships could produce savings of over $70 billion, in fiscal year 1986 dollars, over the 10-year period while providing the same number of ships. The principal types of new ships suggested were lower cost guided missile destroyer, a V/STOL cruiser, and a diesel-electric submarine. If shipbuilding savings of $70 billion could be achieved, it would be more than enough to offset the expected deficiencies in the shipbuilding budget that would result from zero real growth. Analogous changes in aircraft and other budgets, plus some savings in the support budget, would be needed to achieve zero real growth in the entire Navy budget.

Of the three strategies, the effect of Strategy III on naval effectiveness is the most difficult to assess. Some naval authorities have argued for a distributed force—one that distributes ships geographically in order to confuse the enemy's targeting and prevent him from massing his attacking forces against a few all-important targets like carrier battle groups. The capabilities of the ships in Strategy III would fit this distributed force concept. Because they are less expensive than the ships the Navy plans to buy, they could also be purchased in larger numbers. The Navy, however, believes that carrier battle groups—defended in depth by various types of ships and aircraft—are the key to wartime success and effective peacetime presence. In the Navy's view, ships procured under Strategy III might not provide the appropriate capability.

In conclusion, there are clearly no easy answers, Mr. Chairman, to the problems that would be created by budget growth falling considerably short of that required to accomplish the Navy's current objectives. Compromises would have to be made in force levels, readiness, or unit capability or, especially in the case of larger budget shortfalls, all of these. Contentious decisions about the types of ships and aircraft to buy would be all the more difficult.

As I said earlier, accommodation to such budget deficiencies would be more efficient if a strategy were developed well in advance to allow such substitutions to be a true option. Thus, it is important for the Congress and the administration to assess long-term Navy plans now in light of probable future budgets and to revise the plans, if needed.

[The statement of Mr. Hanushek follows:]

PREPARED STATEMENT OF DR. ERIC A. HANUSHEK

Mr. Chairman, the Congressional Budget Office (CBO) appreciates the opportunity to testify today on the costs of attaining and sustaining the 600-ship Navy. When the current Administration assumed office in January 1981, it established the objective of building up the total number of the Navy's "battle force" ships to over 600 by the end of the 1980s. This numerical goal was a shorthand for more specific force structure and modernization goals, such as increasing deployable carrier battle groups from 12 to 15—with a comparable increase in aircraft to fly from these carriers—and expanding the number of nuclear attack submarines.

The ensuing expansion has raised concerns about the budgetary implications of attaining and maintaining such a force, and the concerns could be well-founded. From 1980 through 1985, the Navy's total budget grew at a real (that is, inflation adjusted) rate of 7.5 percent a year. Over the next decade, CBO estimates that the Navy's budget would have to increase at a real rate of between about 3 percent and 5 percent a year to meet all of the Navy's goals. Such sustained growth, while clearly not impossible, would be unprecedented in peacetime and, in constant dollars, would lead to a doubling of the Navy budget between 1980 and 1994.

My testimony today will first describe CBO's projections of budgets needed to meet current Navy goals. These projections are contained in CBO's just released study entitled Future Budget Requirements for the 600-Ship Navy. Then I will outline several strategies that accomodate lower growth in the Navy's budget, should the Congress find that necessary. Each of these strategies, however, would provide a different Navy and, quite possibly, one that is less capable than the version currently planned.

FUTURE NAVY BUDGET COSTS

Ships and Aircraft

The Navy should meet its 600-ship goal by about the end of this decade. Primarily as a result of ships authorized before 1981, the number of battle force ships has grown from 479 at the end of fiscal year 1980 to 534 as of May 31, 1985. In the meantime, the Administration requested and the Congress provided a series of shipbuilding budgets that together were about 60 percent higher over the 1982-1985 period than those of the preceding Administration. The resulting ships will start to enter the fleet about 1986. Their influx, coupled with an unusually low number of ship retirements projected for the remainder of the 1980s, should enable the Navy to realize its goal of 600 ships in the battle force by the end of the 1980s or the early 1990s.

Attainment of 600 battle force ships does not, however, fulfill all the Administration's naval goals. Still higher levels of shipbuilding would be required to achieve force structure and modernization goals beyond the general objective of 600 ships. These include obtaining 15 deployable carriers and the modern escorts to accompany them, increasing the number of nuclear attack submarines from 90 to 100, expanding amphibious lift capability by 50 percent, and continuing to replace retiring ships with more modern (and more expensive) versions. CBO estimates that these goals will require continued real growth in the shipbuilding and conversion (SCN) budget averaging at least 5 percent a year into the mid 1990s. (Through 1990, CBO's cost estimates are based on Administration plans; in years beyond 1990, when such plans are not published, CBO used retirement factors to estimate the numbers of ships necessary to achieve and maintain planned force levels.)

In contrast to the 600-ship goal, plans to expand and modernize Navy and Marine Corps combat air forces probably will not be fully realized over the next five years. The Navy plans to increase the number of carrier air wings in the active-duty Navy from 12 to 14 to complement the expansion of deployable aircraft carriers to 15. (An air wing consists of 80 to 90 aircraft that operate off an aircraft carrier plus about 50 percent more airplanes per wing needed to provide for training and support requirements.) The Navy also intends to alter the composition of its air wings according to a new plan that calls for more medium attack aircraft (the A-6) but fewer light attack aircraft (the F/A-18) than in the past. The Navy will continue to retain older aircraft, however, and current force plans will result in an average retirement age of 24 years.

Navy plans submitted in February 1985 suggest that by 1992--when all the aircraft purchased over the next five years will be operational--the Navy will still be short 366 aircraft of nine different types, although it will have an excess of 239 aircraft of five other kinds. To rectify these problems and meet current goals for expansion and modernization, aircraft budgets would have to increase through 1990 by at least 6 percent a year after inflation; following the buildup, sustaining budgets would fall below 1990 levels but would still remain about 19 percent above the 1985 level.

The cost estimates just described assume no growth beyond today's levels in the real unit costs of ships and aircraft. The Navy has recently held down unit cost growth, sometimes even achieving reductions. Over the long run, however, unit costs have increased faster than inflation because of improvements in the weapons systems and other factors. Ships built in the 1960s and 1970s displayed average unit cost increases of about 3 percent a year above the rate of inflation. Unit costs of aircraft purchased since 1980 have increased at a real rate of 3.8 percent a year. If such increases recur, then the costs of meeting goals for ships and aircraft would be higher than those estimated above.

Other Costs

Shipbuilding and aircraft procurement make up about 24 percent of the Navy's 1985 budget. The Navy budget must also cover investment costs for research and development, munitions, Marine Corps equipment, military construction, and so forth. In recent years, these costs have typically consumed an additional 22.5 percent of the total Department of the Navy budget, and CBO assumes they remain at that level in the future.

The Navy must also pay for important support costs--mainly the appropriations for operation and maintenance and for military personnel. Because of the difficulty in relating support costs to readiness--and hence in knowing how much support is needed--our analysis relies upon three alternative projections to bound the plausible range of future support costs.

RESULTS OF ALTERNATIVE ASSUMPTIONS

Alternative assumptions about key budget factors lead to a range of estimates for future Navy funding needs. All estimates assume that money is provided to meet the Navy's ship and aircraft goals. The lower end of the range of estimates assumes no future real growth in unit costs of weapons and the lowest of the support cost estimates used in the study (roughly 1 percent annual real growth in support over the next 10 years). These assumptions would still imply real growth in the total Navy budget averaging 2.5 percent a year for the next decade. The upper end of the range assumes 3 percent annual real growth in unit weapons costs (consistent with longer-run history) and more generous support funding (growth of about 3 percent a year). This leads to average real growth in the total Navy budget of 5.1 percent a year. The middle range--which yields real growth of 4.2 percent a year--assumes growth in unit weapons costs and the middle of the study's three projections of support costs.

Case	Fiscal Years 1985-1994 Annual Real Growth Rate (In percents)	Fiscal Year 1994 Budget Estimate (In billions of fiscal year 1986 dollars)
I	2.5	126.5
II	4.2	144.6
III	5.1	153.1

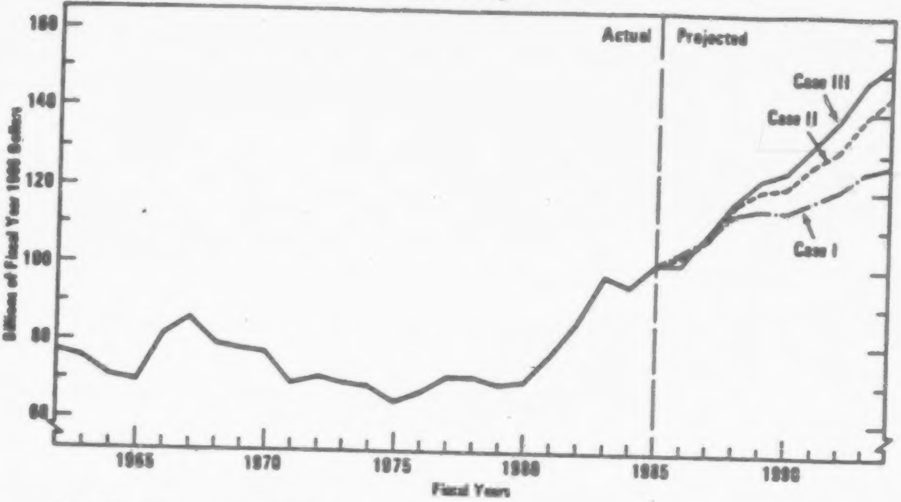
While the support cost increases seem reasonable today, they are uncertain and could be low. By 1995 the projected budgets have a ratio of investment to support costs ranging from 1.04 to 1.25, well above today's level of 0.88 or the 1970s average of 0.73. If this projection of declining support expenditures relative to investment is not fully realized, our support cost estimates could understate actual budget requirements.

The Summary Figure on the following page plots the projected budget requirements through fiscal year 1994, together with actual appropriations for the Department of the Navy from 1962 through 1985, adjusted for inflation. The Navy budget was remarkably stable during the 1960s and 1970s--apart from a modest increase during the Vietnam War years--with no sustained period of real growth exceeding three years. The results of CBO's analysis, however, indicate a need for continued growth for an additional nine years beyond 1985 to achieve and sustain current naval force objectives. If this should occur, Navy budgets would be about double the 1960s-1970s norm before they begin to level off again in the mid-1990s.

STRATEGIES TO ACCOMMODATE LOWER NAVY BUDGETS

Although Navy budgets could expand enough to accomplish all current goals, recent limitations on overall defense budget growth suggest that the Navy might have difficulty achieving these sustained increases. Accomodation to limitations on overall defense budget growth would be more efficient if a strategy were developed well in advance. To illustrate possible effects on the Navy of budgetary limits, CBO considered three different ways to hold Navy expenditures to zero real growth over the next 10 years. That would mean spending about $250 billion less over those 10 years as compared with roughly 4 percent annual real growth--which is the middle of the range of estimates discussed above. I want to emphasize that the choice of zero growth is arbitrary and constitutes no recommendation on our part. It simply allows concreteness in our assessment of needed changes in plans to

Summary Figure.
Alternative Cases for Navy Budget Projections



SOURCE: Congressional Budget Office.

accommodate lower Navy budgets. Nor are the strategies discussed below exclusive or exhaustive; rather they suggest basic modes of emphasis.

Strategy I--Cut Investment Resulting in a Smaller or Older Navy

Strategy I would emphasize cuts in investment to be achieved by accepting a smaller or older Navy. This strategy assumes that 80 percent, or $200 billion, of the reduction needed to achieve zero real growth would come from the investment accounts and that each category of investment would be cut in proportion to the projected share it holds from 1986 through 1995. The shipbuilding budget, for example would be reduced by $61.8 billion over the next 10 years. Assuming a proportional reduction in the number of ships procured, a total of only 151 ships would be authorized contrasted with the 216 CBO estimates would be needed to meet current force goals during the 1986-1995 period. Thus, assuming no change in ship retirement plans, a fleet totaling about 600 ships in 1990 under Navy plans would settle back under Strategy I to about 535 ships by the end of the 1990s. If, however, the numbers of new auxiliary and support ships were reduced more than proportionately in order to protect the procurement of more expensive combatants, then the reduction in numbers of ships would be still higher. Zero real growth for a period of 10 years, therefore, could result in a fleet numbering much closer to 500 than to 600 by the end of the century.

Aircraft procurement would be similarly affected. Under this strategy's assumptions, a reduction of $51.0 billion in aircraft procurement would occur over the 10-year period. This could lead to about 2,000 aircraft (again, assuming a proportionate reduction) compared with the 3,000 estimated by CBO as necessary to realize current force goals. The reduction could be even larger if fewer purchases raised the unit costs of aircraft.

The effect of such reductions in the numbers of ships and aircraft in the fleet might be mitigated by keeping older ships and aircraft in the fleet longer than current practice. This could maintain the numerical size of the fleet at higher levels but would not, of course, achieve fleet modernization.

Unfortunately, there are no comprehensive measures of effectiveness to suggest how much such a strategy would harm naval capability. Clearly, though, having fewer ships and aircraft would degrade U.S. capabilities below the levels judged necessary by the Navy. In peacetime, reduced capabilities could require fewer deployments or greater time at sea for naval personnel with adverse effects on retention. In wartime, there would be some increase in risk that security objectives would not be fully achieved.

Strategy II—Reduce Support Expenditures

Strategy II would achieve zero real growth primarily through reductions in support costs. Many believe that, because of the difficulty of altering investment plans, reductions in support are a likely way to achieve savings. It certainly might be possible to achieve some efficiencies in support expenditures. The Navy has already sought efficiencies to hold down the number of personnel it needs, and more of these and other types of efficiencies might be possible.

On the other hand, it is unlikely that the support accounts alone could provide enough spending reductions to accommodate budget deficiencies of the magnitude assumed under zero real growth. In 1980, when the fleet was smaller, support budgets were almost unanimously believed to be inadequate. Yet even if all growth in the support budgets since 1980--except that which offset inflation—was removed and no further growth was allowed, only about $186 billion of the required $250 billion would be eliminated. Cuts in support funding, therefore, could contribute to making up budget shortfalls; but, except in cases of relatively modest deficiences, they probably could not carry the full burden.

Strategy III—Procure Less Expensive Ships

Like Strategy I, which leads to a smaller or older Navy, Strategy III would absorb most of the budget deficiencies in the investment accounts, but it would maintain fleet size by developing less expensive ships, aircraft, and weapons. If one believes, as some do, that a large fraction of the cost of modern military systems is spent extracting a small extra margin of performance from complex technology, then this approach might be attractive. A CBO report, Building a 600-Ship Navy: Costs, Timing, and Alternative Approaches published in March 1982, illustrates this approach for ships. That report examined alternative 10-year shipbuilding programs in detail and found that incorporating lower-cost ships could produce savings of over $70 billion (in fiscal year 1986 dollars) over the 10-year period while providing the same number of ships. The principal types of new ships suggested were a lower-cost guided missile destroyer, a V/STOL cruiser, and a diesel-electric submarine. If shipbuilding savings of $70 billion could be achieved, it would be more than enough to offset the expected deficiencies in the shipbuilding budget that would result from zero real growth.

Analogous changes in aircraft and other budgets, plus some savings in the support budget, would be needed to achieve zero real growth in the entire Navy budget.

Of the three strategies, the effect of Strategy III on naval effectiveness is the most difficult to assess. Some naval authorities have argued for a "distributed force"—one that distributes ships geographically in order to confuse the enemy's targeting and prevent him from massing his attacking forces against a few all-important targets like carrier battle groups. The capabilities of the ships in Strategy III would fit this distributed force concept. Because they are less expensive than the ships the Navy plans to buy, they could also be purchased in larger numbers. The Navy, however, believes that carrier battle groups--defended in depth by various types of ships and aircraft—are the key to wartime success and effective peacetime presence. In the Navy's view, ships procured under Strategy III might not provide the appropriate capability.

CONCLUSION

There are clearly no easy answers, Mr. Chairman, to the problems that would be created by budget growth falling considerably short of that required to accomplish the Navy's current objectives. Compromises would have to be made in force levels, readiness, or unit capability or, especially in the case of larger budget shortfalls, all of these. Contentious decisions about the types of ships and aircraft to buy would be all the more difficult.

As I said earlier, accommodation to such budget deficiencies would be more efficient if a strategy were developed well in advance. This is particularly true for Strategy III; alternative designs for less expensive ships, aircraft, and weapons must be begun well in advance for such substitutions to be a true option. Thus, it is important for the Congress and the Administration to assess long-term Navy plans now in light of probable future budgets and to revise the plans if needed.

Mr. BENNETT. You are ready to receive questions?

Mr. HANUSHEK. Certainly.

Mr. BENNETT. I appreciate the thoroughness and thoughtfulness that you have shown in bringing these ideas to us; and secondly, the fact that it is not your position, as I understand it, that you are recommending a change of goals from the 600-ship Navy, but just approaching the way to make our fiscal situation a little less binding or troublesome as we have the responsibility of meeting the fiscal situation. So you are giving us thoughtful comments about how we could approach some of the needs of the Navy more modestly.

The 600-ship Navy, which has really been achieved by this administration with the help of Congress, is probably the clearest signal that our country has given to the world that we intend to be strong.

To now focus our attention and saying why we shouldn't have achieved the one thing that we did that was worthwhile, outstanding, and truly to be seen, would be quite negative in nature.

On the other hand, it would be quite wrong if we didn't try to see all alternatives and see if there were ways of doing things cheaper, more modestly.

Recently, the Navy has deployed or at least suggested methods of deploying ships in other localities. In this hearing, before it closes, we are going to have some attention given to that matter.

It is going to cost a lot of money to do that. That is one factor which concerns me very much.

Another factor which should be brought out is, we talked about 3 or 5-percent growth. NATO has at least a 3-percent growth. We are asking them, asking ourselves to have a 5-percent growth, is entirely consistent with what we have asked all the world to do.

We are looking at strictly in the sense of being in a position which we hope to be in. We have set a goal of having a 600-ship Navy; in fact, we have it.

If you threw in all the things that have now been put into effect, we are going to have a 600-ship Navy. We should see if we can do it cheaper and see if we can save money or whether we are doing things that might cost money, we don't really need to do.

We shouldn't feel bad about what has happened. I am glad we got a 600-ship Navy. It could be a thousand, and some great naval authorities say we should have that. Maybe we could get by with 459 or 592, or something like that.

The 600 was set as a goal, and we ought to feel proud of that. Your help in presenting alternatives, alternative ways of saving money are great. Only the 600-ship Navy is being looked at. There are other things which are much worse off as far as dollars are concerned.

Anybody have any questions?

Mr. SPENCE. Mr. Chairman, I appreciate the time and effort that you put into the study, and we in our position are charged with the responsibility of trying to provide the best kind of a defense for our country.

We want the best defense. In this pursuit, we hear from experts on all sides of the question, and at home a lot of times people ask me about people up here, and all these experts we listen to, and I usually tell them that I am not that smart, you haven't got to ask them, they will just volunteer it to you most of the time.

I wonder, though, in listening to people who advance all these ideas, what they base them on. There is no question about it, we can have various kinds of strategies, call for various kinds of ships and armaments, and sit back here at home and just have a few torpedo boats out here off the coast, and it would be a lot cheaper. We could have a Navy, on the other hand, that would cover all the seas and consider the threat, keep open the seas, lands and all the rest.

It is according to what view you look at the overall question from, but what I would like to know from you, in these other naval strategies that you propose, can you give us some examples of these less expensive types of ships and so forth, and how we might be able to develop these ships cheaply, and fast enough to offset what has already been done, because a lot of research and development, time and effort have gone into developing this 600-ship Navy, and all the things that are necessary to meet the threat that is posed to us.

Mr. **Hanushek.** Sir, we have actually provided alternative approaches in a previous report—"Building a 600-ship Navy." In that report, issued in 1982, we described a variety of different ship types that would be less expensive and would ultimately fit into a different strategic deployment of forces.

These types include diesel-electric submarines, less expensive guided-missile destroyers, and cruisers which have V/STOL capability. We can furnish you with that report.

Mr. **Spence.** I appreciate that. I wanted to know how much different it was, how much it went into the overall strategy, and we had hearings yesterday on the submarines from experts who spend all their time and effort in this respect.

We have gone through large and small carriers, diesel submarines, nuclear submarines, all the rest of those things so many times, it doesn't bear talking about much more.

I thought the question was resolved before; diesel submarines couldn't do the job, for instance.

Mr. **Hanushek.** It is not as effective as our nuclear attack submarines, and particularly, with our current strategy for most uses, the diesel submarine is not what we would want to employ.

People sometimes raise the strategic question as to whether two diesel submarines are equal to one nuclear attack submarine. For some purposes and some deployments, I think we would conclude yes, and for other purposes, no.

These issues, I think, go beyond what we have been able to address. We do not have a complete way of summing up the effectiveness, ultimately, of our forces in different deployments. People have proposed these different strategies, and we have tried to develop plans that are consistent with different proposals of naval strategists, but we do not have any summary evaluation.

Mr. **Spence.** I understand. That is the point I wanted to make.

Mr. **Bennett.** Mr. Sisisky.

Mr. **Sisisky.** Did you make an analysis of what the strategic homeporting that the Navy plans to do would cost not only in the dislocation of people, but the infrastructure that we have to build in these areas?

Mr. **Hanushek**. That is not in this report at all, and we have not done any separate analysis of that.

Mr. **Hale**. Our goal is to give you an idea how the total Navy budget would be affected.

Mr. **Sisisky**. This would be a fairly large number, and it is a decision that either can be delayed, and that is a budgetary item. It may come in a different part of the defense budget away from the Seapower Subcommittee, but it comes through the Military Construction Subcommittee.

Mr. **Hanushek**. That falls into a large number of uncertainties in our cost estimates. We tried to give this range because there are a number of individual decisions that would lead to quite different support costs and other investment cost numbers. That is why we give a range of 3 to 5 percent here to incorporate these different decisions.

Mr. **Sisisky**. I also notice you talk about how shipbuilding and aircraft procurement make up 24 percent of the 1985 budget. How does that relate to other branches of the services, such as the Air Force?

Mr. **Hanushek**. Hardware? Total investments?

Mr. **Sisisky**. Yes.

Mr. **Hanushek**. I believe that total investment costs, as a proportion of the budget, are largest in the Navy.

Mr. **Hale**. I want to check that. I don't think they are all that far off from the other services. The Army may be lower because they received a lot more money, but the Navy and Air Force would be similar.

[The following information was received for the record:]

In fiscal year 1985, about 45 percent of the budget authority for the Department of the Navy will go for investment versus about 47 percent for the Department of Defense as a whole. Investment is defined here as budget authority for procurement, research and development, and military construction.

Mr. **Sisisky**. Add the 24 percent and the 22.5 percent, it is 46.5, and I thought the personnel costs were somewhere around 43, so you would hit a fairly close figure.

Mr. **Hale**. DOD-wide investments about 45 percent. The Army may be a little lower, perhaps the Air Force a bit higher, but they are not dramatically different.

Mr. **Bennett**. Mr. Blaz.

Mr. **Blaz**. No questions.

Mr. **Bennett**. Mr. Bateman.

Mr. **Bateman**. Doctor, looking at the 1982 publication, and having to do it rather hurriedly, the three strategies outlined in that publication are the same three strategies that you pose as possible alternatives in today's presentation.

Mr. **Hanushek**. CBO's 1982 publication does not go through the different strategies so much as different kinds of force mixes, and it has actually more different mixes of forces than we consider in our current study. It does not consider alternatives, such as decreasing support costs. The 1982 study is aimed much more at specific ship configurations and force structures than our current one.

Mr. BATEMAN. Based on the sheer bulk, the one deals in somewhat greater depth of the subject than the other, but as I read the statement of three strategies, they seem to be essentially the same, so we are not plowing new ground with today's presentation, is that right?

Mr. HANUSHEK. It certainly has much the same flavor on the subject of the alternatives. There are a limited number of global alternatives to our current force and ways of changing our current force.

Mr. BATEMAN. Again, a rapid perusal of the 1982 study deals with the Navy's forward strategy and questions to some extent whether or not that is a sound strategy.

Can we make judgments here to reduce the size of our fleet and the mix of vessels within that fleet without Congress, in effect, or this committee, in effect, determining what our specific global naval strategy should be?

Mr. HANUSHEK. Certainly, the best way to consider it is in budgetary decisions linked directly to Navy strategy and Navy goals.

Mr. BATEMAN. Can we responsibly, on something as critical to national defense, as the adequacy of our Nation, can we possibly make rational decisions without regard to strategy, to measure the threat that is posed, what mix of ships, and where they are needed to counter that threat?

Mr. HANUSHEK. No, I don't believe so.

Mr. BATEMAN. Diesel submarines—I take it you are not recommending diesel submarines, only pointing out that there are economies if you were to use them?

Mr. HANUSHEK. We are not recommending any of these three strategies. We are just trying to list alternative ways of changing the budget if, in fact, the Congress finds it necessary to reduce the total size of the naval budget.

Mr. BATEMAN. The Congress to this date has apparently, so far as I am aware, sort of signed off on the concept of the 600-ship Navy based upon the certain naval and maritime strategy.

Are you aware of anything that has happened since Congress made that judgment in 1980, 1981 or thereabouts that would dictate—other than fiscal constraints—changing that strategy and the objective of a 600-ship Navy?

Mr. HANUSHEK. We are addressing the issue of fiscal constraints that have, in fact, changed since 1981 and 1982.

Mr. BATEMAN. Mr. Chairman, that is all I have. Thank you.

Mr. BENNETT. I appreciate very much the nature of your testimony. Congress needs to know if you do change the strategy, what will be the cost implication? It needs to know what kind of ships you could get cheaper, and we have to make the decision with the Joint Chiefs of Staff and other people, as to whether they will fulfill the objectives.

I am personally very grateful for the type of testimony you have given, which is not biased for any particular point of view, because you don't make the decisions about what the international strategy, national strategy is going to be, or micromanage the Navy. But you have shown us the alternatives that could be used with different objectives.

I am very grateful for your presentations, one of the best I have seen come from your organization. Unless there are further questions, we will go to the next witness.

Mr. **Bennett.** Mr. Frank Conahan, Director of the National Security and International Affairs Division of the General Accounting Office. I don't know what the Congress would do without the General Accounting Office.

I know they do the best they can to give us all the facts as best they can, even though I do disagree with them from time to time. Mr. Conahan.

STATEMENT OF FRANK C. CONAHAN, DIRECTOR, NATIONAL SECURITY AND INTERNATIONAL AFFAIRS DIVISION, U.S. GENERAL ACCOUNTING OFFICE, ACCOMPANIED BY JOHN LANDICHO, SENIOR ASSOCIATE DIRECTOR FOR NAVY-MARINE CORPS SUBDIVISION

Mr. **Conahan.** With me today is John Landicho.

I do have a statement which I would like to submit for the record and briefly summarize.

We are presently assessing the Navy's ability to implement its fleet expansion program and the effect this program will have on overall U.S. naval capabilities. This study is underway, and we hope to complete it by the end of the year, at which time we will present this committee with final conclusions.

Today, I would like to share our observations on the basis of our work to date. I would like to discuss the Navy's ability to reach its 600-ship force goal; operating and support aspects of the expanded fleet; and areas in which decisions will have to be made by the Navy, Department of Defense and by the Congress.

SELECTION OF SHIPS FOR THE FLEET

Let me begin with our study of the Navy's selection of ships for the expanded fleet. In this study, we are looking only at the Navy's general purpose forces even though strategic forces are part of the 600-ship Navy. The number 600 is a misnomer, because a ship count of about 600 will fluctuate depending on ship retirements and the timeliness and capability of ships entering the fleet.

By the end of fiscal year 1985, the Navy will have 541 ships in the fleet and 75 new ships under contract. Although the Navy will numerically reach a 600-ship force by 1989, it will not achieve the desired force mix in that year. For example, the Navy will not have the number of amphibious ships needed to lift 50,000 marines and their equipment. The Navy's goal is to achieve this capability by the year 1994.

Our analysis of the Navy's future shipbuilding plans indicates the Navy will not achieve its desired 600-ship force mix through the year 2000. Neither will it achieve the number of ships it is now programming.

The methodology used in our analysis is spelled out in the statement we have submitted for the record.

We have concluded that by the end of fiscal year 1990, the Navy's actual force level would contain 3 percent fewer ships than the Navy is currently programming. This would grow to 5 percent in 1995 and 7 percent in the year 2000. Shortfalls would occur in most categories of ships, but the largest deviations would be in surface combatants and attack submarines. This part of our analysis only addresses numerical shortfalls against Navy's program plan.

I must say, Mr. Chairman, that the Navy has been extremely cooperative with us in this work. I believe that they believe that this will be helpful to them in managing their Fleet Expansion Program, and they have shared with us a good deal of information.

Mr. BENNETT. Are you saying by the year 1989 or 1990, we will have a 600-ship Navy if you go with the ships that we are now procuring, but they won't be precisely the particular ships that they feel they ought to have at that time?

Mr. CONAHAN. That is correct, Mr. Chairman. In the second part of our analysis, we have attempted to identify what total force capability shortfalls may occur by the years 1990, 1995 and 2000. While we are still working with the Navy on this matter, in general, our indications are that some capability shortfalls do exist and will remain through the year 2000. For example, current force projections indicate that the surface combatant and amphibious lift capability shortfalls will continue on through the year 2000. The specific results of this analysis are classified.

We are now in the final phases of our study and are in the process of ascertaining the effects of the various shortfalls through discussions with personnel at the CNO and operational fleet command levels and plan to develop the effects that come from having less than desired force levels and mix. Likewise, we will continue our efforts to determine the cost implications and to identify and evaluate alternatives.

Of equal importance to the acquisition of the ships needed to provide a balanced force is the ability to support and sustain that force. Support and sustenance includes ordnance, spare parts, facilities, operating tempo, ship maintenance, and aircraft maintenance and flying hours. We have not yet begun the work necessary to comment on the manpower issues relating to the 600-ship Navy.

In this study, we plan to use Navy data and estimates to identify past, present, and future operating and support levels. We also intend to identify projected cost implications on fleet readiness and sustainability.

We are attempting to establish a baseline for operating and support levels using the current fleet, its current operating levels, and the projected levels to bring that fleet up to varying increments of readiness and sustainability. By doing this, we can project, considering inflation and other economic aspects, the various levels of funding that may be needed to maintain the 600-ship Navy. Like the assignment on the selection of ships, we plan to show some of the limitations facing the Navy, the effects of those limitations, associated cost implications, and alternatives that may be available to overcome or better manage the limitations.

Throughout the course of this study, we are working closely with Navy officials and they have claimed that operating and support funding since fiscal year 1981 has improved Navy readiness. We agree with that assessment. Nevertheless, indications are that readiness and sustainability questions exist in such areas as spare parts, ordnance and ship maintenance. As the fleet expands, the limitations within these and other operating and support areas could be aggravated.

Navy officials state that spare parts used to maintain fleet readiness were adequately funded over the last 2 years. We have not yet completed our work in this area. We have noted, however, that through the middle of fiscal year 1985 the availability of ship material spares has achieved a rate of about 77 percent against a Navy goal of 85 percent. Navy officials did state that war reserves are below prescribed levels. The Navy, however, has a plan to acquire more spare parts.

Navy ordnance ranges from sophisticated missiles to small arms ammunition. Fleet officials have told us that ordnance levels are low and that certain types of ordnance only go to deploying ships when available. Our own studies confirm that. Last year, we did a report looking at sophisticated munitions in all three services, and the same conclusion was attained in our own independent work.

Cross-decking is often necessary to ensure that a deploying ship has an adequate load of ordnance. Fleet officials said that when certain ordnance levels are low, ships deploy with less than their prescribed loads.

Ship maintenance is a continuous process ranging from that performed by the ship's force to overhauls, and service life extension programs. Fleet officials are concerned with the Navy's decision this year to extend the maintenance cycle of some surface combatants. That is a concern in both the Atlantic and Pacific fleets.

Other operating and support concerns addressed by fleet officials are reduced training for shorebased carrier forces to fund requirements for deployed forces; and a large backlog in real property maintenance activities.

As noted earlier, most of the operating and support issues raised today are observations we have developed based on our work to date. We will continue to develop these issues.

Mr. Chairman, members of the subcommittee, this concludes my prepared remarks. I will be happy to answer your questions.

[The statement of Mr. Conahan follows:]

PREPARED STATEMENT OF FRANK C. CONAHAN

Mr. Chairman, Members of the Subcommittee, thank you for asking me to appear before you today. My remarks are unclassified.

The Navy's ability to effectively plan and manage its fleet expansion program is of keen interest to all of us. As a result, we are assessing the Navy's ability to implement its fleet expansion program and the effect this program will have on overall U.S. Naval capabilities. Our objectives are to address the following questions:

Will the Navy's planned fleet expansion result in the force mix the Navy requires to fulfill its commitments?

Do Navy plans adequately consider the costs of fleet expansion with regard to future Navy and DOD budgets?

What are the impacts of fleet expansion on the readiness and sustainability of the existing fleet, recognizing that it is being expanded?

Will the Navy be able to recruit, retain, and train the people needed to man the expanded fleet?

Over the next few years we plan to provide the Congress with information with which to make more informed decisions concerning the future effectiveness and budgetary impacts of the Navy's fleet expansion program.

Today I am prepared to discuss observations we have developed on the basis of work done to date. Specifically, I will address: the Navy's ability to reach its 600-ship force goal; operating and support aspects of the expanded fleet; and areas in which decisions will have to be made concerning the optimum use of available resources.

Let me begin with our study of the Navy's selection of ships for the expanded fleet. In this study, we are looking only at the Navy's general purpose forces even though strategic forces are part of the 600-ship Navy.

The "600-ship Navy" is the Navy's shorthand way of expressing a force requirement for: 15 deployable aircraft carriers and their associated air wings; 4 battleships; 238 surface combatants (frigates, destroyers, and cruisers); 100 attack submarines; amphibious ships to lift 50,000 marines and their equipment; 31 mine countermeasure ships; and sufficient numbers of support ships.

The number "600" is a misnomer because a ship count of about 600 will fluctuate depending on ship retirements and the timeliness and capability of ships entering the fleet.

By the end of fiscal year 1985, the Navy will have 541 ships in the fleet and 75 new ships under contract. Although the Navy will numerically reach a 600-ship force by 1989, it will not achieve the desired force mix in that year. For example, the Navy will not have the number of amphibious ships needed to lift 50,000 marines and their equipment. The Navy's goal is to achieve this capability by the year 1994.

Our analysis of the Navy's future shipbuilding plans indicates the Navy will not achieve its desired 600-ship force mix through the year 2000.

We recognize that out-year plans are seldom fully realized. Nevertheless, using the Navy's current out-year plans, we wanted to determine the likelihood of those plans ever being realized; what effect any shortfalls would have; the cost implications of the shortfalls; and what alternatives are available to cope with the shortfalls. We based our analysis essentially on the centerpieces of the 600-ship Navy, namely, the 15 aircraft carriers. We did not attempt to validate the requirements for the carriers nor any of the other elements of the 600-ship Navy.

By comparing Navy's five year plans with actual force levels achieved over the past 20 years, we developed factors to estimate future general purpose force levels in the Navy's official 600-ship count. We first applied these factors to the Navy's fiscal year 1986 program plan for fiscal years 1986 through 2000. After adjustments reflecting the status of current Navy programs, our analysis shows that increasing shortfalls can be expected. Specifically, by the end of fiscal year 1990, Navy's actual force level would contain 3 percent fewer ships than the Navy is currently programming. This would grow to 5 percent in 1995 and 7 percent in the year 2000. Shortfalls would occur in most categories of ships, but the largest deviations would be in surface combatants and attack submarines. This part of our analysis only address numerical shortfalls against Navy's program plan.

One cannot fully assess the status of the 600-ship Navy without addressing capabilities of the ships in the fleet. In the second part of our analysis we have attempted to identify what total force capability shortfalls may occur by the years 1990, 1995, and 200. Using approved Navy criteria such as the "Surface Ship Combat Systems Master Plan," and with assistance from the Chief of Naval Operations staff, we developed notional[1] configurations encompassing the requirements, missions, and capabilities for the following categories or groups of ships: surface combatants (frigates, destroyers, and cruisers); attack submarines; amphibious warfare ships; mobile logistics ships (station ships, oilers, stores, and ammunition ships); material and fleet support ships (rescue, salvage, repair, and ocean surveillance ships, and tenders); and mine warfare ships.

Next, to identify potential capability shortfalls, we applied the forces that may be available, based on the Navy's program plan and GAO's force estimates, to the notional force configurations. In doing this, we took into account the effect of the new more capable multimission CG-47 class ships—compared to such ships as the DDG-2, DDG-37, and CG-26 that are in the fleet today. While we are still working with the Navy on the this matter, in general, our indications are that some capability shortfalls do exist and will remain through the year 2000. For example, current force projections indicate that the surface combatant and amphibious lift capability shortfalls will continue on through the year 2000. The specific results of this analysis are classified.

We are now in the final phases of our study and are in the process of ascertaining the effects of the various shortfalls through discussions with personnel at the CNO and operational fleet command levels and plan to develop the effects that come from having less than desired force levels and mix. Likewise, we will continue our efforts to determine the cost implications and to identify and evaluate alternatives.

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[1] A theoretical or average ship of any one category of ship or group of ships used for planning purposes.

Of equal importance to the acquisition of the ships needed to provide a balanced force is the ability to support and sustain that force. Support and sustenance includes ordnance, spare parts, facilities, operating tempo, ship maintenance, and aircraft maintenance and flying hours. (We have not yet begun the work necessary to comment on the manpower issues relating to the 600-ship Navy.)

In this study we plan to use Navy data and estimates to identify past, present, and future operating and support levels. We also intend to identify projected cost implications on fleet readiness and sustainability.

We are attempting to establish a baseline for operating and support levels using the current fleet, its current operating levels, and the projected levels to bring that fleet up to varying increments of readiness and sustainability. By doing this we can project, considering inflation and other economic aspects, the various levels of funding that may be needed to maintain the 600-ship Navy. Like the assignment on the selection of ships, we plan to show some of the limitations facing the Navy, the effects of those limitations, associated cost implications, and alternatives that may be available to overcome or better manage the limitations.

Throughout the course of this study we are working closely with Navy officials and they have claimed that operating and support funding since fiscal year 1981 has improved Navy readiness. Nevertheless, indications are that readiness and sustainability questions exist in such areas as spare parts, ordnance, and ship maintenance. As the fleet expands, the limitations within these and other operating and support areas could be aggravated.

Navy officials state that spare parts used to maintain fleet readiness were adequately funded over the last 2 years. We have not yet completed our work in this area. We have noted, however, that through the middle of fiscal year 1985 the availability of ship material spares has achieved a rate of about 77 percent against a Navy goal of 85 percent. Navy officials did state that war reserves are below prescribed levels. The Navy, however, has a plan to acquire more spare parts.

Navy ordnance ranges from sophisticated missiles to small arms ammunition. Fleet officials have told us that ordnance levels are low and that certain types of ordnance only go to deploying ships when available. Cross-decking is often necessary to ensure that a deploying ship has an adequate load of ordnance. Fleet officials said that when certain ordnance levels are low, ships deploy with less than their prescribed loads.

Ship maintenance is a continuous process ranging from that performed by the ship's force to overhauls, and service life extension programs. Fleet officials are concerned with the Navy's decision this year to extend the maintenance cycle of some surface combatants. Likewise, they feel this decision was made without their input and without supporting engineering studies that assess the feasibility of such extensions. They also question how these extensions will affect such things as the fleet modernization program. CNO officials have stated that studies will be done and that only older classes of combatants will have an extended time period between scheduled maintenance periods.

Other operating and support concerns addressed by fleet officials are: reduced training for shorebased carrier forces to fund requirements for deployed forces; and a large backlog in real property maintenance activities.

As noted earlier, most of the operating and support issues raised today are observations we have developed based on our work to date. We will continue to develop these issues.

Mr. Chairman, Members of the Subcommittee, this concludes my prepared remarks. I will be happy to answer your questions.

Mr. BENNETT. Again, I want to congratulate your organization on the great help you give to Congress. I have never really been seriously in any way critical of what you have done.

I would like to point out that you are saying primarily the Navy has other needs that are not going to be thoroughly addressed by the 600-ship Navy.

As I see it, you say that there are particular ships that are needed that are not going to be in the fleet that ought to be there, and you also point out the cost of maintenance and things of that type.

I would like to say to you that in this last Congress, the last few months in Congress, they have passed an amendment to the defense bill which looks toward picking up the readiness aspect, and Congress is now conscious of the fact that maybe we bought some things that are expensive and there are some mundane things that we ought to acquire.

Have you done a study about the cost of the Navy's deployment program, shipping new ships to new ports?

COST OF HOMEPORTING

Mr. **Conahan**. You are talking about new homeporting of the ships. I have some preliminary information on that. As presently prescribed, the Navy would homeport at four general locations: Staten Island; Everett, WA; nine locations in the gulf coast and in three separate locations on the west coast.

This would entail four—no, three battleship groups and two carrier groups. Our preliminary estimate is that in order to bring those locations to the point needed in terms of new military construction and some other facilities, it would cost just over $1 billion.

Mr. **Bennett**. Total deployment change is only going to cost $1 billion?

Mr. **Conahan**. In terms of military construction and outfitting these new locations, and these are the preliminary, initial numbers. I suspect that they could increase, but these are the latest numbers available from the Navy.

Mr. **Bennett**. I had envisioned perhaps including in my figures some things that have to do not directly with appropriations: PX's, commissaries, Olympic-size pools, chapels for the three prominent faiths, and things of that type, which have a tendency to get built at the various locations, some done from appropriated funds, some done from nonappropriated funds.

To me it is fairly expensive to do, and whether it is worth it or not is something this committee has yet to address.

There are some values to it, so I am not necessarily being critical. A great value would be to try to find where you wouldn't have to build those new buildings, where there are some facilities available, like Pensacola, for instance.

I find it more difficult to arrive at an approval for things where almost everything has to be built from scratch.

Now, on the west coast, it seems to me, outside of San Diego, there is a positive Navy presence on that coast, and I am more inclined on the west coast of the United States to see something done in the way of dispersal, and I am not talking about taking anything away from San Diego, but creating something like you are doing up there in Washington. That probably makes sense.

Mr. **Conahan**. I need to point out, Mr. Chairman, that we do have some work ongoing in that very regard.

Mr. **Bennett**. As soon as you can get it to us, we would like to have it. I am not trying to throw any cold water on the idea of dispersal. It has a value, but it has to be looked at in connection of having a 600-ship Navy and all the other obligations the Navy has to keep abreast of.

Mr. Conahan. Preliminary indications are that modifying existing facilities to accommodate the ships planned for the new homeports would require an investment of something less than 20 percent of the new homeporting requirement.

Mr. Bennett. Thank you very much.

Mr. Spence.

Mr. Spence. You are not quarreling with the number of 600 ships. Your work is designed to show us how well the Navy so far is recommending to Congress how best to meet this goal, whether we are falling behind or whether they are recommending no ships in certain categories, and so forth.

Based on what we have been doing in the last couple of years, we might or might not have been going along with Navy plans. You are basing yours on GAO projections?

Mr. Conahan. We are using the Navy's program plan out through the year 2000. We took a look at what the Navy performance has been over a 20-year period, 1964 through 1984. We then applied that experience against what the Navy is planning to do through the year 2000. We made considerable adjustments to a pure application of that 20-year period to this 15-year period on the basis of what we know, and can see out in the near term and our projections are made on that basis.

Mr. Spence. The nuclear attack submarine category, for instance. A few years ago, to meet this goal of 100 submarines, we had to build a certain number each year, and falling pretty much behind, maybe 1 a year for a few years.

In later years, we had to build more than, say, four or five. What are your projections there as to where we are right now in meeting our goal of 100? That is, nuclear attack submarines, considering the fact that older boats are being retired at certain times.

Mr. Conahan. I don't think that I have where we stand today, but I do have that where we will stand in the year 2000. Whereas we think overall that there may be a 7-percent shortage, there will be a slightly higher shortage in attack submarines.

Mr. Spence. Thank you. That is all I have.

Mr. Bennett. Mr. Sisisky.

Mr. Sisisky. Because of the timeframe, you skipped very lightly, and I understand it, over ship maintenance, and you made a statement in there that the fleet officials are concerned about the Navy's decision this year to extend the maintenance cycle of some surface ships.

How widespread is that? Is it very widespread, because I have some concern over that, too?

Mr. Conahan. We talked to representative individuals at the commands, and they did feel that they wanted to point that out to the General Accounting Office, so I think we have those statements from responsible people at both commands.

Mr. Landicho. This is true. The commands are North Atlantic and Pacific Fleets.

Mr. Sisisky. No overtime in the public yards. Timeframe in the words was not of great importance. To me, I wonder whether a ship would stay tied up in a yard for 6 months, or whether it made any difference if it stayed for a year?

If so, do they need a 600-ship Navy? What importance is that maintenance of the ship?

SHIP MAINTENANCE

Mr. **Conahan**. No. 1, these ships need regular maintenance, but also, when they go in for maintenance, there is a certain modernization that takes place, and fleet officials are concerned, if you lengthen the time period, you will delay the time for getting new items on to the ship, and that concerns them to some extent.

Fleet officials did feel that they were not adequately consulted in this matter. The people here in Washington have told us that, for the most part, these extensions will go to the older ships and not to the newer ships, and that they are now studying this matter, so that they can firm up, or refine this decision.

Mr. **Bennett**. Mr. Blaz.

Mr. **Blaz**. Thank you, Mr. Chairman.

From your analysis so far, you have dwelled on the question of maintenance, costs, and whether the Navy could have the number of ships at the right time, the right mix.

As you go around the various corners of our country examining and investigating, has the question of whether or not the Navy is capable of manning these vessels ever arisen?

Mr. **Conahan**. Yes, sir, the Navy itself asks that question, and we are studying the matter ourselves. It is clear that the Navy, as is the case in the Army and Air Force, is in better shape manpower-wise today than they were 6 years ago. We see a better quality recruit, better retention rates, and end strengths in better shape than they were at that time. However, as you look down the road, we do have to have some cause for concern. The traditional pool from whence our manpower comes is, 17- to 21-year-old males. Demography tells us that in the early 1990's the pool takes a considerable dip, so we will have to look at whether that pool of manpower will be sufficient for the services or whether we need to consider some alternatives.

I have no answers there. The equipments are becoming much more sophisticated, and we have to see what we need in the way of manpower to operate and maintain those equipment, so the Navy worries about that, and we are currently looking at it, but we don't have conclusions.

Mr. **Blaz**. Thank you, sir.

Mr. **Bennett**. Mr. Cavaiola.

Mr. **Cavaiola**. Your statement indicates that although the Navy will achieve its 600-ship goal by 1989, it will not achieve its desired force mix until some time thereafter, and the one example you cite is amphibious force shipping. You indicate that goal won't be met until 1994.

Are there any other instances that you can cite from your analysis to date that indicates a lag in the Navy's achievement of its specific force goals within the 600-ship total?

Mr. **Conahan**. Yes; in 1990, we estimate that the Navy will be short in surface combatants by 42 ships. Surface combatants include cruisers, destroyers, and frigates. I wouldn't want to go into the mix there, but they will be short by 42 ships.

They will also be short on station ships, the ships that are able to keep up with the fleet, and provide the fleet fuel, ammunition, and stores. There are two examples.

Mr. CAVAIOLA. To this point in your work, do you see the need to study some alternatives to the Navy's plan, and what do those look like, if so?

Mr. CONAHAN. The previous witness mentioned there are a number of alternatives. They range from funding the full requirements of the Navy, as they and we see them now, to some size down of the force and that sort of thing.

It seems to me, as we look over the whole situation and as has been mentioned here earlier, there was a national decision made earlier in the eighties, as between the administration and the Congress, to expand the fleet. We take no question with that whatsoever. We feel that decision was one that had to be made, and it was made. However, if you take a look at investment versus support and sustainability over that period, one has to conclude that the emphasis was on investment of new ships, and initially there wasn't as much consideration given to support.

Beginning a couple of years ago, the Navy began to give more consideration to support and sustainability, and as you mentioned earlier, the Congress has expressed itself on that matter again this year. Notwithstanding that, we have to take a close look at whether we can really support and sustain the fleet that we are putting into place. For example, if we are to replace a carrier that will go out of the fleet in the next 4 years, we all need to take a very close look at whether we can adequately maintain and support the fleet that we have in place at that time, let alone what is entailed with a new carrier group, or an extension of a carrier group through a service life extension program or something of that nature.

So, to me, I would be concerned with being able to maintain and support what we have.

Mr. CAVAIOLA. Thank you, Mr. Chairman.

Mr. BENNETT. Well, of course, you put your finger on something that is very close to the heart of all of the several spots. One was with regard to whether we can do all the things that we want to do with what we are now purchasing, so if you feel like there is no overstatement of the ships that we have for the objectives we have, but you feel there is a shortfall of some kinds of ship, it narrows down to the idea that if you are going to have what you envision is a perfect situation, then we have to have a look at the objectives which are given the Navy.

If you reduce the objectives of the Navy to doing very much smaller tasks, obviously they would not have to have the number of ships and the Navy itself doesn't create the tasks assigned to it.

That is given by the Joint Chiefs of Staff and the Commander in Chief, I assume.

It is not itself the organization that constructs all the objectives. If we should lessen our treaty obligations or what we expect to do in time of war, rely upon Great Britain, for example, to bring all the commodities and personnel from the United States to the European theater if we had a conventional war—our goal is 10 divisions in 10 days, and there is no way we could get 5 divisions there in 5 days—then you could reduce the American objective and get the

British to do that. You are not critical of the particular ships, except there is a shortfall of some of the ships that we would need.

We all have objectives. I have an objective to be alive and handsome. I have just made the first one. I am still alive. I am not as handsome as I would like to be. So in this case, we have 600 ships, and they are not all the perfect ones we have for all the objectives, the national obligations of the Navy.

We could change the national obligations of the Navy and make it somewhat different, or spend more money to achieve these objectives.

Basically, we are producing a 600-ship Navy, and that is one of the few clearly definable objectives of the national defense in 1985 which has been achieved.

I don't know of another one, certainly not as dramatic as that one. It may have its degrees of imperfection, but it is a great achievement to have done that. It doesn't seem to be wasteful.

There has been no testimony as far as that is concerned yet to date, so I appreciate very much your input. It is very, very helpful to us, and it is this sort of thing that is helpful to Congress and to the Navy, because when you point out to the Navy some of the things you are going to do in the future, you are not going to have the kind of ships you want.

It is interesting to see what you say those ships are, because some are not as expensive as the other, so it may be a way to get to the 600-ship Navy less expensively.

Mr. CONAHAN. Last summer, we sat down with Secretary Lehman and discussed what our goals and objectives were. I believe that he would say that he sees this as being helpful to him in managing fleet expansion, and it is in that context.

Mr. BENNETT. I think it has been very, very helpful. I appreciate your being here.

We will turn to the next witness. I must say, the next witness that is coming forth is my idea of what an Admiral ought to be.

Admiral Kidd probably gave this committee the clearest analysis—he can't do this today in an open meeting—but he gave this committee the clearest analysis of the strategic, tactical responsibilities of the U.S. Navy that this committee has ever had, certainly in my 37 years I have been here.

Today, it stands out as the clear, beautiful presentation, understandable—of course, that is an achievement itself, to get it through my thick head—about what the Navy must do, and it is a difficult thing to do.

I want to say to you, it is a real pleasure to welcome back Admiral Kidd, one of the great heroes in my book.

STATEMENT OF ADM. ISAAC KIDD, JR., U.S. NAVY (RETIRED)

Admiral KIDD. I am humbled by those warm comments. Thank you, sir, and my other friends on the committee for inviting me back. I will endeavor to respond to the questions put to me by your able staff assistant, Mr. Cavaiola.

The four questions he asked me to respond to: How requirements for naval forces are established within the NATO alliance and within our own Navy.

Next item, the availability of possible improvements in this overall process. Next, how plans for a 600-ship Navy meld with alliance shortfalls.

Finally, the process of warship acquisition alternatives to specific types of ships currently planned by our Navy. Well, if we had a week, I still wouldn't finish.

Permit me to pick up on the thread of obvious interest, you, sir, and your own colleagues, so as not to interrupt the continuity.

I would like to build this ship, that we are going to address, on two pillars. One, a conversation by a hero of mine, General LeMay, at a recent change of command at SAC Headquarters, when he pulled the new chief, CINCSAC aside. "This is an awesome responsibility you are taking on," said he.

"Whom do you remember about Pearl Harbor?" This friend of mine said, "Sir?" "I asked you a dogging question," said General LeMay "Whom do you remember about Pearl Harbor?" "Admiral Kimmel and General Short," responded my contemporary.

General LeMay said, "You got the message." He continued, "Who in the Congress did not support requisite and requested air power in the years preceding Pearl Harbor?"

Response, "Beats the heck out of me." General LeMay continued, "Who was the Assistant Secretary of the Army for Air Power, the Assistant Secretary of the Navy for Shipbuilding?"

"No idea" came the reply. Point made.

The next pillar keys to a conversation in preparation for visiting you today, down in Annapolis, I went down to see Rip Miller, who coached me when I was a midshipman playing football, and, as one of the last two survivors of that Notre Dame team, many years ago, that had the four horsemen in the backfield and the seven mules in the line, Rip is the sole survivor of the line, and Mr. Jim Crowley, the fullback, is the sole survivor of the Four Horsemen. I posed to Rip, a naval officer in WW II, what you expected, and I said, "What do you think they would be interested in?"

He said, "We have become so specialized, and with specialization has come great cost, and greater numbers are needed on the bench." He said, "When I was there under the tutelage of the Rock," [coach Knute Rockne] we had to go both ways" and, he said, "The last thing Mr. Rockne would say to us before we would leave the locker room before we left for the field, he would say, "Well, I will see you about 4 o'clock." I respectfully leave you with those two thoughts.

In other words, those that came out of the game were either on a stretcher or otherwise incapacitated. They were expected to go both ways, and the object of the exercise from both discussions, General LeMay's and Coach Rip Miller's, strictly was the object of this drill this morning—within budgets and other constraints available in the period preceding the contest—how to be sure we win.

Now, we are here to talk about, is 600 ships enough? Enough of what? We are guessing, I would respectfully underline the fact that you are listening at the moment to a "has-been," and what he has to say is just about worth what you are paying for it, nothing.

I respectfully remind you that an over-1,000-ship Navy was not enough to so sober Hanoi, that they were too terrified to take us on. Even with five carrier battle groups they fought us, five bird farms on station at a time until we got half the country paved with cement, and could move planes ashore. Yet, the Soviet Union, the bully on the block at the moment, has stayed in his cage; so, 1,000 was apparently enough to keep him squared away in Europe, so we have clearly done things about right in the past for Europe because we have had no great thundering war in Europe. How about the rest of the world?

These rascals in the chair now, those without our best interests at heart, probably see greater advantage in nibbling us to death like a flock of ducks, in distant places, Africa, other distant places where maybe we won't be too interested, or they hope we will decide, is it worth the candle and decide against it.

READINESS

Readiness, haven't heard that word yet, except from you gentlemen up there at the bench, readiness to use what you give us. That is the key to success, readiness plus national resolve to commit in time, and to beat some sense into the opponent with sufficient alacrity, to get sufficient attention and have him conclude that his adventurism was not the best idea he had that week. Big numbers are essential. If dollars dictate small numbers, they must be able to go both ways.

Readiness clearly identifies deterrence and victory, if we should have to fight. Is there a less expensive way to do it? There is no cheap way to go to war. None.

History has made that point abundantly clear, and yet, we continue to look for a bargain. That is the way we are built, and that is fine, but I was a professional prize fighter before I came in the Navy, and keep in mind, there is no record of any professional lightweight defeating a heavyweight.

If you were Ham Lorimer, who had a stable of boxers, it is less expensive to feed a lightweight, but there is no record of a lightweight aspiring to the heavyweight crown and winning, no.

We are an international heavyweight. There is no question about that, and if we are going to compete in that class, we best be prepared to do so.

NATO STRATEGY

Next, on NATO. You asked me to talk about NATO, and I will in greater detail, but keep in mind, as relates to the subject before us today, Navies, when NATO strategy was first addressed, conceived and signed off on by the signatory nations at the outset, we had an abundance of war stocks in Europe. We had seapower coming out our individual and collective ears in the Atlantic Basin, the Royal Navy, the French, United States, and there was plenty of time in the strategic scheme of things to plan on being able to have a clean sweep in the Atlantic, get rid of the Soviet submarine before we would have to begin to move merchant bottoms with reinforcing and resupplying forces across the Atlantic.

We wouldn't even have to start until we had gotten rid of the threat.

In the intervening years, things have changed. Stocks have gone down to weeks only in some commodities. Navies have shrunk, yet our decisions to keep American youngsters in Europe as part of an allied front facing the bloc have been adhered to.

We have many thousands over there. It has never been, and Heaven forbid that it should become our style to let those kids die on the vine without adequate supplies, so they don't run out of the last round of whatever it is they need to shoot; and, we must feed them.

Now, we also feed other people. We are feeding Africans today, and we certainly have not had a track record of allowing lives to starve to death.

Translation: Some 6,000 shiploads of stuff needed for every 30-day period unloading in Europe—needed in order to reinforce that which was there in the beginning, to reinforce that which we sent over and to resupply both, and at the same time, to provide but 50 percent (one-half) of peacetime consumption rates of the folks that live there—6,000 boatloads a month, roughly 4,000 of which would be devoted to providing one-half of the food and fuel that they are needing to exist on today.

I make that point because it is important we understand, we don't want to be gilding the lily, or be accused of planning on feeding them at peacetime rates, food, energy—we are talking of only one-half, peacetime rates.

Moreover, there is quite a bridge of aircraft needed to haul the troops across the ocean. Now, those aircraft are vulnerable while en route. No armament on a 747 or a DC-10. They have got to be protected. One million youngsters must be flown over in the first few weeks.

Two to 300 equipped young soldiers leaving Dover, DE, or wherever, MAC picks them up—visualize one shot down along the way. Those waiting to get on the next plane, by golly, are going to look around for the nearest bus depot, and the reinforcement process would come to a grinding halt until we got rid of the threat.

The way the good Lord made the world, the islands of Azores, Bermuda are part way in the middle, but there is an awful lot of air space in between, and we need bird farms to provide the requisite air cover.

Today, you and I have no choice, as members of the NATO alliance. Reinforcement and resupply have got to begin on day one or even earlier. We can't afford to wait until day 30-plus, until we have cleaned up the Soviet threat. We have got to go on day one or earlier, if we recognize and use strategic warning, and have the national resolve so to do, in order to be sure that that hose across the Atlantic with the hydrant in North America, and the kid over there at the forward edge of the battle area with a nozzle in his hand has adequate pressure coming out of the nozzle.

This is what seapower is all about. In this case, the Navy's job is to be sure that some rascal doesn't run over that hose with a truck and park on it, raises cain with the pressure at the business end of the line.

How do you do that? You take the tonnage that has got to move and the ships needed to haul it, and the number of miles in the envelope above for airpower, and you add them all together and you get numbers—ships and planes.

Yet, we seem to be determined, well, let's tinker with the strategy when "availables" don't equal needs. Well, that is always an attractive thing to do, been going on for several hundred years. Can't we fiddle around with the strategy? That is a no-cost option and the people that tinker with those valves are seldom, if ever, in seats of responsibility and never are they holding the doggone nozzle, but it is the fashionable thing to do.

However, as Mr. Bateman pointed out, terribly critical. It is the only safe thing to do, provided the opposition agrees in advance to our strategic adjustments designed to save us money.

I have yet come across a war where that type of prior agreement was available in advance of the first arrow being slung from a bow, or bullet traveling down the barrel of a gun.

To get to my answers, to get them in useful shape, I turned promptly to a handful of the same gentlemen whose advice I sought, and have taken in the past, Vice Admiral Fowler, retired from the Naval Sea Systems Command; Vice Adm. Ed Briggs, deputy commander of the Pacific Fleet, and Rear Adm. Archie Swartzrauber, retired Chief of NATO requirements and now superintendent of the Maine Maritime Academy, and our distinguished naval shipbuilder, Perry Nelson and other gentleman.

I questioned Perry Nelson. Can we get from here to there? Time did not permit me to go far afield. I will turn in their written views on adjournment today.

[The following information was received for the record:]

the Society of Naval Architects and Marine Engineers
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OFFICE OF THE PRESIDENT

August 27, 1985

Admiral Isaac C. Kidd, Jr., USN (Ret.)
6171 Leesberg Pike
Falls Church, Virginia 22044

Dear Admiral Kidd:

I am most flattered that you would ask for my comments relative to your upcoming testimony before the House Armed Services Committee chaired by the Honorable Charles E. Bennett. It should be noted that the views expressed in this letter are my own personal opinions and do not necessarily represent the views of the Society of Naval Architects and Marine Engineers.

In regard to the adequacy of the projected 600 ship Navy, I must leave such judgment to those like yourself who have faced the realities of projecting American sea power overseas. Yours is an awesome task to determine the needs in relation to our worldwide national interests. My only comment in this regard is that I firmly believe that the United States produces the finest, most capable warships in the world.

A corollary to the determination of the viability of the 600 ship Navy is the adequacy of the fourth arm of national defense - our Merchant Marine. The United States is an island nation. We are dependent on the sea for trade, transportation, resources and for a share of our security. In terms of international commerce, we are number "one" --- the world's largest trading nation. Between twenty and twenty-five percent of the world's commerce between continents goes into and out of the United States.

Thirty years ago, U.S. flag ships carried almost twenty percent of the U.S. seaborne imports and exports. Today, less than five percent of this cargo is carried by U.S. flag ships.

The effect of this dangerously small U.S. flag merchant fleet could result in disaster for the United States. As you so rightly stated in the article in the Washington Times, on February 5, 1985, "If owning nations chose to deny sealift to us, the result would be economic blackmail to which we could not respond in peacetime much less in war."

Such a dramatic decline in the U.S. flag, seaborne trade has been caused by the inability of the United States to compete in the world market. The reasons are many and varied, they include:

- High crew costs
- Lack of automation
- High maintenance costs
- Old ships with inefficient steam plants
- High capital investment costs
- Other nations subsidize their fleets
- Worldwide shipping market depression

Revitalization of the American Merchant Marine cannot be accomplished under a totally free trade policy given the conditions that exist in the world today.

Not only are our own shipping companies facing extreme difficulty in surviving, but many other countries are also falling on hard times.

In the past week, the Sanko Steamship Company of Japan has gone "belly up" with a debt of $2.2 billion owed to banks and another $2 billion in debt to the trading firms and for charter fees.

Other bankruptcies include Irish Shipping with debts over $100 million; Reardon Smith of the U.K. - $26 million in debt; Saleninvest of Sweden - $600 million in debt. In Hong Kong, Grand Marine, the shipping arm of Correan Company, and Weelock Marine, have failed. In addition, many Greek owners are being kept afloat by U.S. and European banks which stand to lose up to $1 billion if they foreclose on their clients.

Unfortunately, the demise of these operators will not ease the oversupply of ships since other shippers will buy their ships at bargain prices in expectation of being able to reduce the freight rates and obtain new shipping orders. It is a very cut-throat market.

In addition, in the depressed world shipbuilding market, cut-rate prices offered from order-starved shipyards, often made possible by state subsidies, are tempting shipowners to buy new vessels despite plunging freight rates.

Given such worldwide conditions, U.S. shipping companies are hardpressed to compete given the higher costs associated with operating a U.S. flag ship. Adding ships to their fleets by buying at low costs at auction or from order starved foreign shipyards, will not increase their profitability since the freight rates are dropping and their operating costs remain high.

The solutions to some of these problems are intimately involved with our national policies in regard to the level of merchant shipping required for national defense. I share the concern expressed by many that our present policies must be revised in the areas of subsidies, laws, bi-lateral trade agreements, cargo preference and so on. They must be reviewed and revised to assist in developing and sustaining a proper supportive merchant marine for the defense of the United States.

Great care must be taken in formulating new policies. All factions must be considered. For example: operational differential subsidies not tied to a concerted effort at cost reduction methods such as crew reductions through automation only tends to make the problem worse; cargo preference may well increase freight rates for other segments of U.S. industry and thus place them at the disadvantage in the world market.

It appears that we need a strong maritime administration that is capable of pulling all factions of Merchant Marine together and develop a coordinated cohesive maritime policy. United we must stand or divided we will surely fall.

Turning to the shipbuilding and ship repair industry an equally gloomy outlook is obtained. There exists in the world today an oversupply of shipbuilding capability. In addition, the building yards in Japan, Korea and Taiwan, with modern efficient yards and very low labor rates, have greatly reduced building costs. European governments, for example, have conceded that their shipyards, whose labor costs are 70% above Japanese levels, cannot compete for standard ship orders. Without state aid most European yards would be unable to secure contracts.

Sweden, the world's second largest shipbuilding nation, in ~~the earl~~y 1970's, will have only one merchant yard next year. The intense competition between European and Far East yards has led to a sharp decline in ship prices and one Korean yard has admitted taking orders at a loss.

In view of the worldwide depression in shipbuilding and the intense cost cutting low labor efforts of the Far East shipyards, it is not hard to understand why the U.S. commercial shipbuilding effort in recent years has been reduced to a very small volume.

The U.S. shipbuilding industry has in the last five years been sustained in large measure by the Navy shipbuilding program. Based on the unawarded Fiscal Year 1985 plus Fiscal Year 1985 five-year Navy shipbuilding program it has been projected that the private shipbuilding and ship repair industry would maintain a nearly level employment of 100,000 workers through 1992.

Such a projection appears to be optimistic since it is highly dependent on full funding of the Navy programs. In view of the high federal budget deficits the probability of maintaining such a shipbuilding capability seems unlikely.

In addition, the Navy programs are concentrated in types of ships built by few yards - namely Newport News, General Dynamics (Electric Boat), Ingalls Shipbuilding Division, Avondale, Todd and Bath Iron Works. Other yards have very limited opportunities and must concentrate on repair and merchant work to survive or go out of business as was the recent case of General Dynamics (Quincy Yard).

Thus, even if the five-year defense plan is maintained, there will be additional shipyards that will not survive or, at the least, will lose the shipbuilding expertise - a capability that takes a considerable time to re-establish.

While the preceding dissertation presents a rather bleak picture of the shipping and shipbuilding industry and would tend to indicate that little has been done to improve our competitive position in the world market, such is not the case.

The industry, with limited capital resources and the low level of orders, has done much more than it is given credit for. Let me cite a few examples:

In the shipping world, the U.S. flag owners have at times been world leaders in the introduction of innovative concepts. The development of the large hatch ships, integrated intermodal container system, barge carriers such as Lash and Seabee, integrated tug and barge systems and LNG tankers, were all originated in the United States. Unfortunately, new concepts in ship types and shipping concepts are easily copied and thus, the technological advantage is short-lived.

For years our offshore industry led the entire world in the development of offshore drilling technology including design, construction and operation of offshore oil drill rigs.

The latest innovation is the tension leg platform. A new concept for deep ocean oil production was conceived by men of vision in the United States, was successfully deployed and is now in production in the Hutton Oil Field. There were many who said it could not be done.

In spite of the greatly depressed merchant shipbuilding market, many of our shipbuilding activities are modernizing their methods of operation. Those shipyards with long term Navy contracts have installed modern equipment, added new dry docks and syncrolifts, employed modular construction and pre-outfitting concepts. As a result, Navy ships are being delivered ahead of schedule and under their estimated costs.

The examples show that the United States industries do possess the capabilities and can be innovative.

What of the future? Is there any hope for our industry? I do not side with the doomsayers who wring their hands and say all is lost. I for one and I am sure there are many more who say, "we shall overcome."

Our industry can and will meet the challenge of the future. The industry has started to concentrate on new concepts, new innovations and new methods to meet the challenge of world competition. And more needs to be done.

The concept of modular construction and pre-outfitting has been reintroduced, more can be accomplished including improved material handling, assembly line techniques, and automation of processors, work and material flow.

There is a need to improve the shipyard management procedures in the areas of advanced planning, material identification, ordering, stocking and delivery.

New methods of quality control are being introduced as a means to reduce waste, cut production time and thus reduce costs.

Specifications are being reviewed to eliminate old ambiguous requirements and being replaced with new concise requirements which recognize new materials, testing procedures and design capabilities.

New computer aided design and manufacturing systems are being installed. We are now beginning to realize the potential savings from this new and powerful tool.

Greater emphasis is now being placed on designing our ships with production in mind in order to simplify construction and thus reduce construction time and cost.

The Society of Naval Architects and Marine Engineers, through its technical and research program encourages and sponsors maritime research and its Ship Production Committee, supports the National Shipbuilding Research Program which promotes research in new and innovative approaches to shipbuilding.

These and other innovative ideas are being introduced in our design and shipbuilding efforts to reduce time to build and cost. The industry is working hard to help itself.

In spite of these innovations and adaption of modern techniques, the industry still needs the support and help that only a sound national maritime policy can provide.

If the United States is to maintain its position of a world power, we must preserve our industrial base. We cannot be reduced to a service based economy and expect to maintain the standards which we have enjoyed in the past.

Every effort must be taken to preserve those basic industries such as steel, auto, aircraft and yes, shipbuilding as national assets.

In regard to shipbuilding much can be done by the Congress and the U.S. Navy to insure the retention of this important industry.

It is most important that a stable naval shipbuilding and ship repair program be maintained. With a firm shipbuilding program, shipyards can plan for the future in an orderly fashion taking advantage of effective planning and longer term production runs to reduce the time and cost to build ships.

The Navy and the Congress must recognize the need for and fund a sound program of ship overhaul repair and update of our current fleet. Too often in the past we have neglected the important aspect of fleet readiness. By maintaining such a program, at a proper and consistent level, the shipyards can again plan for and provide a continuing shipyard capability that can become more efficient with a consistent work outlook.

There must be a greater emphasis on research and development. Over the past ten years this country has been reducing the amount of funds in basic and applied research.

We have been living off our past research too long and must now increase our efforts to find new ways to produce our ships and improve older ones.

In this regard, we must continue to design the ships of the future. It is most important that we have the next generation of ships carefully developed in the design stage. Last minute, hurried up design efforts can be costly and wasteful. It has been shown in the past that one dollar wisely spent on design can save ten dollars in construction.

Today's strong effort to reduce costs through competitive bidding on fixed price contracts is strongly endorsed. However, great care must be exercised to insure that such practices do not force shipyards to buy in at any price with the hopes of recovery on change orders. The end result will be a repeat of the catastrophic days not too long ago of cost overruns and costly claims adjudication.

These are perilous times for the marine industry - shipbuilders, shippers, designers and offshore operators alike. This country of ours and our marine industry have never lacked for the will to win. A challenge has been laid down, "improve or perish." The industry has done much in the past to meet this challenge. With a helping hand not a "hand out" we can do much more. Through innovation, proper planning and the application of advanced technology we will win!

Very truly yours,

Perry W. Nelson

Perry W. Nelson
President

PWN:jc

MAINE MARITIME ACADEMY
CASTINE, MAINE 04420
207-326-4311

28 August 1985

Admiral Isaac Kidd, Jr., USN (Ret)
3257 Valley Road, N.W.
Atlanta, Georgia 30305

Dear Admiral:

Here are my thoughts on the 600-ship navy--enough? too much?

And this is done in the line of duty. Every chance I get I put in a word for the merchant marine these days.

With highest esteem and warmest personal regards.

Sincerely,

S. A. SWARZTRAUBER
RADM, USN (RET)
SUPERINTENDENT

Enclosure

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NOTES FOR ADMIRAL KIDD ON 600-SHIP NAVY
FOR SEA POWER SUBCOMMITTEE, H.A.S.C.,
6 September 1985

* What Kind of War?

** Soviet constitution requires leadership to oppose capitalism and support wars of liberation.

** Soviet/Russian history demonstrates ultra-conservative foreign policy.

*** Seldom bold strokes. Hungary, Afghanistan were almost risk-free as far as military confrontation with U.S. goes.

*** Sometime USSR tries "sneaky" moves like Cuban missile crisis, but backed down when caught with hand in jar.

*** Will usually accept a step backward in in order to gain two forward later.

*** Soviets prefer surrogates. Used China/North Koreans during Korean War. Used North Vietnamese during Vietnam War. Used East Germans in Berlin. Used Cuba, Nicaragua, etc. to harass weaken, frustrate United States.

** Soviets believe time on their side; that U. S. will collapse eventually if they wait, harass long enough.

*** Soviets have seen that U.S. will react boldly to situations like Korea, Vietnam and they believe they can count on U.S. to waste assets, manpower, national will/pride, energy on Soviet supported scenarios.

*** Soviets feel they have little or nothing to gain from direct confrontation with U.S. Will probably avoid.

** Least likely war would be NATO/North German plain. Soviets would get bloodied there. Bullies don't like to be bloodied.

** Soviets have nothing to gain in nuclear exchange.

*** Conservative people don't initiate actions that might risk survival.

*** If they want U.S. technology as a goal, they have nothing to gain by destroying it.

** Most likely war then would be in Third World.

*** Soviet surrogates using Soviet weapons.

*** "Comfortable" distance from USSR.

*** Far enough from U. S. shores to maximize logistics problems and tax U.S. resources.

*** Conventional, like Vietnam.

*** Could very well be in Africa.

* How Long a War?

** In Soviet interest to orchestrate as long a conflict situation as possible.

*** As the U.S. tends to "react," rather than "act" it will probably be on Soviet terms.

** Nations always under estimate length of wars.

*** During WWI, troops were going to be home by Christmas.

*** During 1942, we said, "There'll be Bluebirds over the White Cliffs of Dover tomorrow..."

*** During Vietnam our President kept seeing the elusive "light at the end of tunnel."

*** Afghanistan. The Soviet leadership (on 20 August 1985, a major speech by Gorbachev) exposed their frustration in being in Afghanistan so long, terms almost apologetic.

** There is almost no precedent in U.S. history for a short war with a major power.

*** During WWI, the Germans never used their mass destruction "risk" fleet, because the British had one just as good/better.

** During WWII:

*** Hitler used rockets because only Germany had them.

*** Hitler did not use his bio/chem weapons of mass destruction, presumably because of fear of retaliation, despite fact many considered him mad.

**** We fought long wars in Korea and Vietnam against Soviet surrogates, and did not use nukes because of risk of retaliation by Soviets among other reasons.

** The fact that U.S. usually far from being mobilized at beginning of war, makes for a longer war.

*** It takes years to tool up, build, train, and carry war to enemy.

*** Experts feel it would take three years to crank up to the warship building pace of WWII and 2-1/2 years to mership building pace.

* Would 600-ship navy be adequate for the kind of war we'll probably have to fight?

** For a "short nuclear war" it would be more than adequate. SSBN force would do its job. Battle groups may or may not be useful, depending on timing of nuclear exchange.

** For a long, conventional Third-World-area war, composition would be a fine nucleus to build on. We obviously needed the 1000 ships we had during Korea and the 950 during Vietnam.

** For a long, conventional war with active Soviet naval opposition, we'd probably need to build up to WWII levels of about 1500.

** 600-ship navy is obviously better than 500, 550 or 599. But not as good as 601, 650, 700.

** 600-ship navy is great peacetime navy. Based on many lessons learned and factors developed during 40 years of "peace/cold/limited war."

*** White House/State commitments

*** Tempo of Ops/flying hours

*** Budget, political realities

*** AVF/manning/development cycles/ recruitment/retention.

** It is probably stretching the U. S. peacetime willingness to pay to maximum.

** It is a reasonable, logical nucleus upon which to build when fighting starts.

*** No naval leader would say "600 is enough." If asked "How much is enough?", he would point to historical data and say, "Give me all you can, and if I win, it was enough."

** What will 600-ship navy do?

*** Deploy five battle groups without the agony of back to back 12-month deployment for critical skills.

*** It will deter nuclear war.

*** It will serve as a nucleus for growth in a long, conventional war.

** What will it not do?

*** It will not deter the Soviets from stirring up a conventional Third World war for us to fight.

*** It will not be enough, short of expansion, to deal with such a war and still do other business as usual.

* Basic Fault in 600-Ship Navy Policy

** It ignores history and the teachings of Alfred Thayer Mahan.

** Mahan taught that effective sea power is a nice balance between the merchant marine of a sea faring nation and a navy to protect it, the commerce, and well being it represents.

** There is no comparable ____-ship merchant marine policy to complement the 600-ship navy. What is the 600-navy going to protect?

*** EUSC Fleet super tankers? (Most EUSC ships are not militarily useful.)

*** Allied bottoms? Will the Greeks be there? In a NATO war, allies would probably be there. But an African War? South America? Oceania?

** Soviets have not ignored Mahan. Gorshkov sounds like a modern day Mahan.

** Soviets have built a merchant marine with same dedication as the navy.

	Merchant Ships	
	USSR	US
1946	400	4500
1985	1750	530

	Major War Ships	
	USSR	US
1946	577	1483
1983	2569	523

Conclusion

600-ship navy will be good for U.S. Not a "cure all," but good medicine. We also need a get well program for the merchant marine or we may have a very expensive dog house with no dog.

#####

Admiral Kidd. Their combined views have reaffirmed my own convictions of many years. On the matter of requirements—input of importance for your respectful consideration—the Secretary of Defense, together with Jack Vessey, Chairman of the Joint Chiefs, just this summer tasked your National Defense Science Board, to address the very same topic.

How requirements came to be, and how do we do better at establishing them? How do we ensure a continuing review/validation—addressing cost tradeoffs, not just within the Navy, but among the several services, such as air power required over the Norwegian Sea to assure reinforcement and resupply.

You need not just carriers to do it, but probably better said—the equivalent of four carrier groups worth of air power if we went to war this afternoon. We have got a magnificent Air Force that can deploy a tremendous amount of very important air power over the Norwegian Sea from NATO bases.

What are those tradeoffs? That study effort of the Defense Science Board, I respectfully commend to your attention. It is completed. I served on the committee.

First, on your first question, how are requirements established in NATO and the United States? In the United States, they are established by the services. Your committee is an example, the Seapower Subcommittee, and you listen to sailors.

Probably too often without enough good thought on the tradeoffs available within the capabilities of the other unified services. We have unified commands today—not just the services. A unified command has responsibility for losing. Back to General LeMay's point.

The unified commanders have had responsibility for losing since 1957. Here we are in the mid-eighties.

I leave you with that fundamental. How many times have you had the unified commanders up here and said, "How are you doing? What are the tradeoffs? Can you do it better from boats or from the beach?"

Yet, the service inputs to DOD, and to the Congress, are expected to reflect all of this homework having been done. Has it been?

In my view, it is not yet being done in an inspirational way. Improvements are occurring slowly. The services passed operational control of their fighting forces to the unified structure in around 1958. In the most recent 3, 4 years, only that recently, have the unified commanders had a seat at the requirements table within the Pentagon.

Interesting.

Do they [your unified combat commanders] have an institutionalized opportunity to be heard here? I didn't, when I was working for you in uniform. I never got invited up.

I retired in 1978. Have you heard Commander-in-Chief, Europe, on maritime needs? Congress, like the services themselves, still is not yet apparently totally acknowledging the 30-year-old way that we have been and are organized to fight.

I don't know if it should be changed. That is your department. There must be a better way, in my humble judgment, to insure that the decisionmakers, Congress, and the Pentagon, have a firsthand opportunity to hear from the contributors, air power over the oceans, Navy, Marines, tactical and strategic air command, and the allies.

SEALIFT

Sealift, for instance, Navy and Maritime Administration. We have reached a point where, apparently, we can no longer depend with the confidence we had in years gone by on the congregation MARAD presides over, being able to do their job, so more and more, the Navy has had to take on MARAD capabilities, functions and responsibilities, leaving less of your approved money to build warships.

You well remember Dave Shoop from the Marine Corps, he said, "I have got more fight than you can ferry," and he was right. Same thing today, and the Army, God bless them, absent a capacity for levitation, they are going to have a mischief of a time getting to war in time.

NATO: On the same point, much the same as internal to the U.S. commanders at combined headquarters, are faced with the proposition where the strategy is adopted/approved by capitals. Flexible response today is the watchword.

Well, it better be pretty doggone flexible, pretty darn remarkable. Those inputs then go to nations. Nations to services within nations, and then NATO comes up with force proposals. These are not requirements.

They really propose what budgets and economies will bear. Not a totaling up of shortfalls provided in military machinery. This is something that I know just from listening to you giants over the years is much on your minds, but there is no way, no machinery available to tell you how to handle the shortfalls, no forum to address who or what nation(s) will make up the deficiencies.

Case in point: The seapower in the Atlantic NATO alliance today, over 200 warships in the escort category short of what would be needed to do all of the bits and pieces of the NATO strategy concurrently, reinforce, resupply, the northern flank, central front, southern flank and not enough to do them all at once.

A 600-ship U.S. Navy is not enough to do it all at once. It is better than a poke in the eye with a sharp stick, better than 599, but it is not enough.

The opponent of the moment, is he going to play by the same set of rules? We better be careful with our assumptions.

The availability of improvements in the requirements process, next point. Well, nations need to keep better books on their alliance and national shortfalls by way of facing squarely the "what ifs."

We don't do that particularly well—250 escorts short; a high number of maritime patrol planes short; talking NATO now, impacting all of the things that capitals around the NATO world would hope could be done simultaneously.

Air capable ships, over a dozen short. That is a NATO term for ships supporting other than tail-hook planes that fly from them.

Not too many years ago, there was a thing called an air-capable ship. We wanted 10 of them and today we have zero. When we had 15 attack carriers and 9 others, ASW carriers, any one of which could handle attack aircraft was that enough to sober Hanoi into behavior acceptable to us? Apparently not.

They attacked anyway, did a pretty good job.

Commander, Striking Fleet Atlantic, for instance, the NATO commander, Stan Turner, soon to testify this morning, supurb tactician, brilliant innovator, found himself obliged to manage the shortages.

Is there machinery for that type of fellow to be heard? No; he has been retired a good number of years. Now we are getting called up to testify on this sort of thing. A little late.

We are making progress, but not at an exhalirating speed. Yet, like Admiral Kimmel and General Short, those in the chair now have the highest probability of being remembered, not in a particularly favorable way.

On your next question, how are plans for the 600-ship Navy put together with alliance shortfalls? Probably, it is the best the United States can do. But 600, is hopefully, not the final number, not by a long shot. It is a step in the right direction.

The fact that the Soviets have been kept in their cages thus far is indeed good news, thanks to Chairman Bennett and his colleagues on the bench there with you over the years. Most have not felt it was prudent to take us on.

Is it good enough? No; apparently not good enough to discourage them from adventurism elsewhere in the world where maybe they think our resolve would not be as vigorous.

The alternatives appear to be too hard. Illogical? Not in view of the fact that there has been no war in Europe thus far, so clearly, we are doing something well. To keep on as we have been, and hope for the best seems to be the order of the day.

We must, however, better address how the 600 number melds with alliance shortfalls and with our own. We've got a football season coming up here. If the Redskins are your favorite team, fine, but I would imagine any one of you would not necessarily look forward to Sundays if somebody in the Redskin hierarchy decided it would be prudent to compromise and take a bargain in tackles, the heaviest of which was 165 pounds.

You might get a whale of a bargain, but your season record would probably be not overly spectacular.

Staying power. We have got to play for 60 minutes. Anyway you look at it. Logistics support for the Navy. Lift for the Army. Lift for the Marine Corps.

This is what an opponent looks for. Not terribly sexy. Merchant/logistics ships can't launch aircraft and commence firing much of their loads in the bowels of a ship. Until the khaki uniforms appear when that infantry goes into battle, you don't win much of anything, as the great chairman, Mr. Bennett, knows unless that soldier has firmly planted both feet on the ground and says, "here I stand and this I hold." Until then, the outcome is somewhat in doubt.

We have got to get those lads there, preferably dry. So 600 ships is good news indeed, thanks to you and your colleagues on the bench, Mr. Chairman.

The trend is in the right direction. Can we stop at 600? Absolutely not. The opposition is not playing by our set of rules, and we have to be very careful that we watch what we want.

Please challenge your witnesses. What are you counting? From my 50-cent seat in the bleachers, that is a moving target. Those 170-pound tackles you got a bargain on, they are not going to scare anybody.

We had over 1,300 men of war at Okinawa, to support an invasion force of about 160,000. The Japanese dug in we thought to be 65,000. They turned out to have over 85,000; ruined our entire day, and it took us 3 months longer than we thought it was going to because both sides had not agreed in advance, that they could use human bombs.

Everybody got shook up during the Falklands drill because Britain was losing three, four warships. We were losing at Okinawa more than that in an average day. It ruins the entire day of Chiefs of Naval Operations and in capitals when you lose over four warships a day. We have got to be careful what we are counting. Six hundred is a big number, but 600 of what?

Of those, how many are 175-pound tackles? The lightest one for the opposition may weigh in at 240. Keep in mind, we lost two-thirds of everything that sailed eastbound from Gibraltar to try and reinforce Malta; lost them.

It is so very easy to tinker with the loss numbers when one asks how much is enough. I urge you, you grab every witness up here by the neck and give them a good shake. Ask what are your loss numbers, and that is going to be a moving target, because one can assume the problem away with too much facility very dangerous!

Too fluid, lower than realistic planning factors can be disasterous, as at Okinawa, losing over four a day, warships, destroyers, first-hand experience, I was in one of them. It gets your attention.

Folks seem to think in a war that it is a benign environment, that nobody really gets hurt. Lost, sunk, or damaged at Okinawa, over 400; ump that against a 600-ship Navy, and we wonder who is sobering whom when we say 600. 600 of what?

WARSHIP ACQUISITION

Your last question, on the process of warship acquisition, looking at alternatives to types of ships currently planned. These were the four questions you gave me from your distinguished young staff gentleman on the left of the Chair.

The process: pretty good. I have watched us acquire ships up here before you giants today, and predecessors of yours going back to Mr. Vinson, back when we had a Naval Affairs Committee.

You are a tough group of judges, and thank Heaven you exist. You were dissatisfied with us back before WW II when we bought ships by the yard. We were never able to come close enough for you in your view. Our estimates were too often wide of the mark. We would tell you how many yards of ships we are going to need to be competitive on the playing field, figuratively speaking, we had to come back too often for more, so we went to total package procurement.

It seemed reasonable at the time, but that wasn't the best idea anybody had ever had, so then we went to annual buys. Now we are trending back again to fixed prices, with all of the inherent dangers of unforeseen overruns that approach has demonstrated.

If, for example, an unstable economy should reoccur as it happened in the sixties, we end up with an old problem of the ship cost overruns followed by staggering claims.

Thanks to that great man in the chair, he helped us figure out how to fix it. We didn't know how to do it. Dollar problems drove builders to the claims mode in order to recoup devastating losses from a gyrating economy which no one predicted or knew how to handle.

Alternative types of lift—we depended as citizens on MARAD for years for providing the requisite lift. We can't any longer, too expensive, I guess. Can't depend on them. More and more, you and I here are looking at the armed services to take up the slack. We have had to face up to and take on more and more of the load in years gone by previously carried by MARAD, because we simply have got to get to war.

We are not going to deter anybody if he sees we can't get to the fight. You can have the finest heavyweight in the world living in the Upper Bronx, but if he can't get to Madison Square Garden, the fellow that arrives in time is going to win by default. I saw it happen one night.

The Navy has more and more responsibility now for getting to war with merchant bottoms. But, merchant bottoms don't scare anybody very much; no bite. They can't fight back.

A word of respectful caution on this tooth-to-tail business. We have been up and down that road a couple times in recent decades, but we have to be very, very careful that we don't end up with a mouthful of superb dental work, teeth, but no Sampson around to wield the jawbone of that ass with all of the good teeth. There has got to be a logistic Sampson with credibility behind all of this fight that we build.

Staying power—one of the first things that is scouted, look at the depth of the other fellow's bench. If he can't make it clear that he is going to be able to play for 60 minutes, there is not going to be much of a season for that team.

Support and lift—the evaporation of the credibility inherent in the lift leg of seapower is to me one of the most sobering things. Any opponent in his capitol is undoubtedly having a good laugh at our expense.

We have got to have the credibility of staying power, staying just as long as needed to whip some sense into whoever is adventuresome enough to yank our chain.

Alternative types of ships—we have got to be able to keep at sea in all weather. Questions arose this morning. Questions came up which made me uneasy, because we are still thinking in terms of, isn't there a less expensive way to do it with smaller, lighter ships? Grand idea, provided we are fighting in a pond like the Caribbean and only on a good day.

As the fellow working for you on active duty in the Norwegian Sea, absolutely atrocious weather, mountainous seas—over 4 years in the chair in Norfolk as the NATO Commander-in-Chief, each year we would go up there for about 3 weeks of a major NATO exercise and each year, all of the little fellows—small ships—are written into the operation and try to participate—the little high-speed fellows, the hydrofoils that will go 50 miles an hour and the bubble boats that will go 80 miles an hour, in 4 years in the chair in Norfolk, they measured up, not once—too rough!

If we are going to have a prior arrangement with the opponent of the moment, that we are only going to play on a nice day and only going to play on a day when the seas are under 4 feet in height, they you can put your money on the small, high-speed ships. They are then a real bargain, but unfortunately, weather is something we have not yet learned how to control and probably a very good thing.

Those little fellows, fast, dandy, fun, better than nothing but not much, too weather-dependent and too ocean-dependent. On that, Mr. Chairman, thank you for inviting me back.

Mr. BENNETT. Thank you very much, Admiral Kidd.

You have given us some very salty language, a lot of things to think about, and the figures you gave us about the 250-ship shortage in escort ships sticks in my mind.

You had talked to me about that before and this committee proceeded to put into legislation the Merchant Marine and Defense Commission. It hasn't yet been appointed by the President, but the law is there now, and next month, that Commission will be appointed.

I don't have any further questions to ask you, but I want to thank you very much for coming here, and I remember all the contributions you made through the years for a stronger Navy, and I am very grateful for it.

Mr. Spence.

Mr. SPENCE. Admiral, I want to thank you, too, for your comments. I can't add anything to them. I have known you for a long time, and I know where you have been, and where you are coming from.

We have all kinds of experts, more than we can handle sometimes, but I appreciate your kind. Thank you.

Mr. BENNETT. Mr. Bateman.

Mr. BATEMAN. I, too, would like to thank the Admiral for sharing his views and his experiences with us today. The emphasis by the Admiral on our limited sealift capacity is something that I think all of us who have any role to play in resolving the shortfalls in our national security are going to have to address and address it a lot more effectively than we have to date. I hope the Admiral's voice is going to be heard very widely, and his measure of that deed is going to attract the Nation's attention.

There is so great a need for having the witness and the others expose this to others.

Mr. BENNETT. Mr. Blaz.

Mr. BLAZ. Thank you, Mr. Chairman. I have listened to many people testify in this body. I have never been as refreshed as I have been today by hearing you make such a compelling case for the Navy, and also your sensitivity for the grunt.

I have never before heard a Navy officer speak about the soldiers and the Marines, in the bowels of the ship, which is really the reason for the whole operation in the first place.

For that alone, you have made an enormous contribution, because we forget that. I am not as gifted as you are in expressing myself, but since Rip Miller went to the school that I attended, I assume that we share the same philosophy, and I have been from the naval service, so I have a very profound feeling for what you just said.

I thank you heartily.

Mr. BENNETT. We are very grateful for you being here, Admiral.

The next witness we have is Admiral Turner, but I don't see him.

I want to say to you, as I have said about the others, I have a special feeling about the people that are here. I am grateful to you for coming here, because you served your country and the Navy, the CIA and other aspects of our Government, you have had that thing that is pretty rare to find in Government, and that is, you have courage, individual integrity.

We may not always agree, but I have a real feeling of gratitude that a person of your capability not only has served the Government so well in the past, but forthrightly speaks out when it might be a little more comfortable for you not to speak out.

And the country is richer because of your being around. We are delighted to have you here today.

STATEMENT OF ADM. STANSFIELD TURNER, U.S. NAVY (RET.)

A METHODOLOGY FOR DEVELOPING STRATEGY AND RELATING STRATEGY TO RESOURCES

Admiral TURNER. Thank you, Mr. Chairman.

On the question of the 600-ship Navy, it seems to me the critical issue is what is the strategy behind it? What are the objectives the Navy hopes to achieve with this particular mix of ships?

Over the long run this committee and the Congress can be more help to the Navy in prodding it to be sure it has a clear, explicit strategy behind this budget request than it does by simply tweaking the budgets as they come forward. There is a great problem in the Pentagon in developing meaningful strategy.

The JCS is unable to arbitrate between the interservice rivalries. The Congress could require the military services to come up with a format that would present a strategy and relate it to their budgets.

What I would like to do with you this morning is to suggest a methodology for doing that, and turning the objectives into specific budget requests:

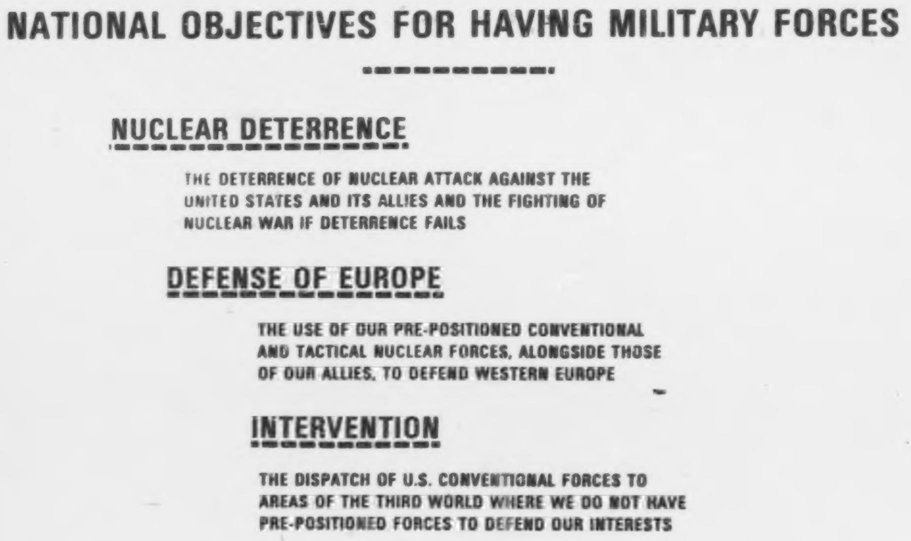
> Strategy is planning for the future by deciding on priorities for allocating present resources. When the assumptions underlying the selection of priorities are explicitly stated, the strategy is best understood.

Strategy is planning for the future by deciding on priorities for allocating present resources. A strategy that doesn't set priorities is not meaningful because you can't turn it into decisionmaking, into specifics for budgets.

If you are going to set priorities you have to make some judgments that program A is more important than program B, and than C, and so on. Those judgments are always based on some judgments about what the world is like or going to be like.

If those assumptions are laid out explicitly, any two people differing on the strategy can go right to the core and have a sensible debate on why they come to different conclusions. Maybe one or the other will give in, assumptions will be changed and the priorities will shift.

In this handout, I tried to develop a strategy for the Navy at this time. It is, though, the methodology, not the particular strategy, which I happen to prefer at this moment, that is my message.



NATIONAL OBJECTIVES FOR HAVING MILITARY FORCES

NUCLEAR DETERRENCE

THE DETERRENCE OF NUCLEAR ATTACK AGAINST THE UNITED STATES AND ITS ALLIES AND THE FIGHTING OF NUCLEAR WAR IF DETERRENCE FAILS

DEFENSE OF EUROPE

THE USE OF OUR PRE-POSITIONED CONVENTIONAL AND TACTICAL NUCLEAR FORCES, ALONGSIDE THOSE OF OUR ALLIES, TO DEFEND WESTERN EUROPE

INTERVENTION

THE DISPATCH OF U.S. CONVENTIONAL FORCES TO AREAS OF THE THIRD WORLD WHERE WE DO NOT HAVE PRE-POSITIONED FORCES TO DEFEND OUR INTERESTS

On the next chart I list national objectives for having military forces. In my view, those are to deter nuclear war, defend Europe where we have pre-positioned forces, and to intervene in areas of the world where we don't have prepositioned forces.

In accordance with this methodology, the next step is to rank order these three national military objectives in priority.

My conclusion comes on the next chart.

NATIONAL MILITARY OBJECTIVES IN ORDER OF PRIORITY

OBJECTIVE	ASSUMPTIONS
1. INTERVENTION	1. LEAST PREPARED TO DO TODAY 2. ONLY USE OF U.S. MILITARY SINCE WORLD WAR II 3. LIKELY TO HAPPEN AGAIN
2. NUCLEAR DETERRENCE	1. NO "WINDOW OF VULNERABILITY" IN SIGHT 2. SDI IS VERY DISTANT 3. BUT BECAUSE NUCLEAR WAR IS GREATEST THREAT WE FACE, THIS SHOULD NOT BE LAST PRIORITY
3. DEFENSE OF EUROPE	1. PRESENT MILITARY IMBALANCE IS BAD AND GROWING WORSE 2. U.S. CANNOT CORRECT ON ITS OWN 3. MUST DEFER ACTION UNTIL EUROPEANS ARE READY TO INCREASE THEIR EFFORT

Intervention in the Third World is first, nuclear deterrence second, and defense of Europe third.

The assumptions behind that rank ordering are that we are less prepared to intervene in the Third World and most likely to have to do it, that we are well prepared to deter a nuclear war, and that there is not much point in trying to beef up our defense of Europe until our allies are ready to pitch in more on their own also. Those assumptions can be questioned but that is the way I look at it.

The next chart, we have to ask ourselves, considering these national objectives, what can the Navy contribute to help fulfill them?

WHAT NAVIES CAN DO TO SUPPORT NATIONAL OBJECTIVES

1. **SEA CONTROL** - ENSURING OUR USE OF THE SEA LANES WE NEED TO USE, WHEN WE NEED THEM

2. **AMPHIBIOUS ASSAULT** - PROJECTING POWER ASHORE THROUGH AMPHIBIOUS OPERATIONS

3. **TACTICAL BOMBARDMENT** - PROJECTING POWER ONTO LAND IN SUPPORT OF GROUND FORCES WITH BOMBARDMENT BY AIRCRAFT, MISSILES OR GUNS

4. **STRATEGIC BOMBARDMENT** - PROJECTING POWER ONTO LAND WITH BOMBARDMENT BY NUCLEAR INTERCONTINENTAL BALLISTIC OR CRUISE MISSILES

Navies do four things for their countries; Exercise sea control, permiting a flow of goods from point A to point B over the sea; project troops ashore in hostile territory by amphibious assault; conduct tactical bombardment, using aircraft from aircraft carriers, missiles, and guns; and conduct strategic bombardment, intercontinental, ballistic or cruise missiles to deter nuclear war.

The next step is to take these four capabilities of the Navy and rank order them against the objectives for our national military posture. In short, we look at the first national military objective, as I rank it, intervention in the Third World, and ask What can the Navy do best to support it?

NAVAL CAPABILITIES THAT SUPPORT INTERVENTION -IN PRIORITY

CAPABILITY	ASSUMPTIONS
1. AMPHIBIOUS ASSAULT	1. WE CANNOT COUNT ON THE AVAILABILITY OF OVERSEAS BASES IF WE DECIDE TO INTERVENE IN THE THIRD WORLD
	2. WE CAN FIGHT OUR WAY INTO MOST COUNTRIES FROM THE SEA BY AMPHIBIOUS ASSAULT
2. SEA CONTROL	1. AMPHIBIOUS FORCES ARE VULNERABLE, ESPECIALLY DURING THE APPROACH TO THE BEACH
3. TACTICAL BOMBARDMENT	1. SOME BOMBARDMENT CAPABILITY WILL BE AVAILABLE IN THE AIRCRAFT CARRIER(S) THAT WILL BE NEEDED FOR SEA CONTROL
	2. AIR FORCE TACTICAL AIR CAN BE EXPECTED TO ARRIVE BY AIRLIFT AS SOON AS AN AIRHEAD IS SEIZED

In my opinion, amphibious capability is the first requirement; sea control the second; and tactical bombardment the third.

The assumptions indicate that I believe we cannot count on being warmly received everywhere we may decide to use our military force. Every Granada is not going to welcome us at the beach, necessarily. There will be situations where we can go in as we did in Vietnam and Korea because it was friendly territory, but if we count on that and it doesn't work, out we are in real trouble if we don't have us an amphibious force to fight our way to shore.

NAVAL CAPABILITIES FOR SUPPORTING NUCLEAR DETERRENCE - IN PRIORITY

CAPABILITY	ASSUMPTIONS
1. STRATEGIC BOMBARDMENT	1. SINCE ICMBs ARE BECOMING VULNERABLE, THE U.S. WILL TURN MORE TO THE SEA FOR ITS DETERRENT FORCES
2. SEA CONTROL	1. MAINTAINING THE INVULNERABILITY OF THE SEA-BASED DETERRENT FORCES, THEN, WILL BE A HIGH CONCERN
	2. NO SPECIFIC THREAT IS IN SIGHT, BUT RESEARCH CAN BE CARRIED ON IN A NUMBER OF DIRECTIONS

Naval contributions to nuclear deterrence are just in my view, increasing our strategic bombardment forces. That is because as our land-based deterrent forces become increasingly vulnerable. We will move more of our nuclear deterrent to sea and the Navy should be prepared deterrent to do this. Not sea control to assure that those forces at sea remain relatively unvulnerable over a long period of time.

NAVAL CAPABILITIES FOR THE DEFENSE OF EUROPE -IN PRIORITY

CAPABILITY	ASSUMPTIONS
1. SEA CONTROL	1. THERE COULD BE ANOTHER CONVENTIONAL, PROLONGED WAR IN EUROPE
	2. OUR USE OF THE ATLANTIC SEA LANES IN SUCH A WAR WOULD BE ESSENTIAL - AS IN BOTH WORLD WARS
	3. THE SOVIET NAVY HAS CONSIDERABLE POTENTIAL FOR DENYING US THE USE OF THOSE SEA LANES
	4. ONLY THE USN CAN EXERCISE SEA CONTROL
STRATEGIC BOMBARDMENT (NO PRIORITY)	1. THE THREAT OF U.S. NUCLEAR ATTACKS ON RUSSIA AS A RESPONSE TO A SOVIET ATTACK ON EUROPE IS NOT CREDIBLE. NO PRESIDENT WOULD PLACE THE U.S. AT RISK TO DEFEND EUROPE
TACTICAL BOMBARDMENT (NO PRIORITY)	1. NAVAL CARRIERS COULD MAKE ONLY A VERY MARGINAL CONTRIBUTION
AMPHIBIOUS ASSAULT (NO PRIORITY)	1. THERE ARE ALMOST NO BEACHES SATISFACTORY FOR MORE THAN AN AMPHIBIOUS RAID
	2. THE DEMANDS OF SEA CONTROL WOULD MAKE IT VERY DIFFICULT TO ALLOCATE ADEQUATE NAVAL FORCES TO A MAJOR AMPHIBIOUS ASSAULT

Naval capabilities for the defense of Europe. What can we contribute there? There is only one contribution, and that is sea control. Over two World Wars we learned that without control of the North Atlantic, there was no way we could continue to prosecute a major war in Europe. We came close to not being able to do that in those two wars. We have to count on the Navy to assure us that we can fight a prolonged war in Europe if necessary.

I don't believe there is any substantial need for strategical bombardment for amphibious assault in a European sea.

I have outlined on the next chart, from left to right the national military objectives in order of priority, and under each, the highest priority Navy contributions working downward.

PRIORITY OF NAVAL CAPABILITIES OBJECTIVES FOR FULFILLING NATIONAL

INTERVENTION	NUCLEAR DETERRENCE	DEFENSE OF EUROPE
AMPHIBIOUS ASSAULT	STRATEGIC BOMBARDMENT	SEA CONTROL
SEA CONTROL	SEA CONTROL	
TACTICAL BOMBARDMENT		

What we have in the upper left corner, amphibious assault, is the priority naval requirement to improve our ability to intervene overseas, which is our highest national objective. Thus that is the highest requirement for the U.S. Navy to improve today.

The No. 2 priority under the No. 1 objective, intervention, is sea control. It is also No. 2 under nuclear deterrence and No. 1 under defense of Europe. So it is also a pretty important role for the Navy.

Next we have some strategic bombardment requirements.

Looking at that chart, if we get a sense of what the strategy for the Navy ought to be today. That is on the next chart. That is just an ability to use amphibious assault in the Third World; second, an ability to control the seas to Europe; and third, more national strategic deterrence at sea.

STRATEGY FOR U.S. NAVY DICTATED BY PRIORITIES ESTABLISHED FOR NAVAL CAPABILITIES

1. A NAVY WITH SUFFICIENT AMPHIBIOUS CAPABILITY TO ENSURE BEING ABLE TO INTERVENE FROM THE SEA ON ALMOST ANY COASTLINE.

AND

2. SUFFICIENT SEA CONTROL CAPABILITY TO ENSURE USE OF THE ATLANTIC SEA LANES AND SUPPORT FOR AMPHIBIOUS OPERATIONS.

AND

3. AN ENHANCED CAPABILITY TO CARRY THE NATION'S STRATEGIC DETERRENT FORCES TO SEA AND KEEP THEM RELATIVELY INVULNERABLE.

This gives us a broad strategy but now we want to progress more towards what you are grappling with, and that is a budget.

I ask the question next, What are the kinds of forces we need to improve each of those naval capabilities, in priority. Starting with amphibious assault, the No. 1 priority. I would suggest that larger numbers of amphibious ships, and ships and marines tailored to brigade rather than division size operations, are the two kinds of changes, improvements we ought to make in our amphibious forces today. The assumptions are laid out next to them.

PRIORITY NEEDS FOR IMPROVING AMPHIBIOUS ASSAULT CAPABILITIES

CAPABILITY	ASSUMPTIONS
1. LARGER NUMBER OF SHIPS	1. WE ARE NOT LIKELY TO PREDICT WELL WHERE THE NEXT INTERVENTION WILL BE
	2. SHIPS ARE SLOW; WE'LL NEED THEM SPREAD AROUND THE WORLD IN ORDER TO RESPOND RAPIDLY
2. SIZING OF MARINE CORPS AMPHIBIOUS FORCES FOR BRIGADE SIZE OPERATIONS	1. IN THIRD WORLD OPERATIONS
	2. ARMY AND AIR FORCE FORCES CAN BE BROUGHT IN RAPIDLY BY AIRLIFT. MARINES SHOULD BE EXTRACTED AS SOON AS POSSIBLE
	3. BRIGADE SIZE UNITS CAN BE AGGREGATED FOR LARGER ASSAULT REQUIREMENTS IF NECESSARY

If anyone does not agree with those particular priorities for improving those forces, we go to the assumptions, debate them and maybe change the priorities. This is at least laid out so you know where we are coming from.

We ask ourselves next, what can we do to improve our sea control capabilities?

I come out with shifting to small aircraft carriers, more destroyers, more submarines as escorts, more deception devices and more mines.

Here, my assumptions differ most from those of the Secretary of the Navy, and in the so-called maritime strategy. For instance, on the second assumption here about larger carriers, the Secretary wants large carriers so he can go into the Norwegian Sea in the event of general war in Europe. I am not sure when and how he is going to go there and for what purpose, because there are no specific assumptions laid out in the maritme strategy.

There is no urgent objective for the U.S. Navy to go into the Norwegian Sea with large carrier task groups early in a general war. The defense of northern Norway is not urgent to the United States. I don't believe any SACEUR would divert sizeable forces from the central front in Europe to defend northern Norway.

The Navy is concerned that there will be air bases closer to the lines of sea communication across the Atlantic, and that the Soviets might move submarines to the northern bases in the fiords. If the Norwegians do a thorough job of destroying the airfields, runways, and fuel storage, before being overrun, it will be a very long time before the Soviets will rebuild them. If the Norwegians put mines or sink ships in their fiords, that problem is minimized also. I would prefer the Soviets try to operate submarines out of the fiords in Norway. It is closer for us and with satellite reconnaissance they are not going to fool us as to which fiord they are in. It is a dangerous place to go into.

Another reason the Secretary gives for going into the Norewegian Sea in his maritime strategy is to defeat the Soviet Navy there, either by bombarding it at its bases, or by challenging it, wearing it down in a contest at sea. Either one is a reasonable proposition.

If you can do it, it is easier to defeat Soviet ships and aircraft, catching them after they are out in the Atlantic. But the opposition is tough in the Norwegian Sea. There are 139 attack submarines in the Northern Fleet. The Secretary of the Navy acknowledges this by saying, "Our submarines have to go and nullify the Soviet submarine force before we can send any surface ships into the Norwegian Sea." I agree, and I believe our submarines can do that over time, but it is going to take time. In the meantime the Navy is going to have to defend the shipping out there in the Atlantic until the carriers can go into the Norwegian Sea. The submarines have won the submarine battle in the Norwegian Sea.

No President of the United States will ever let the Navy actually go to war in such a risky manner, where in one big role of the die, by sending carriers into the Norwegian Sea, we risk losing a major segment of the U.S. Navy. We would probably not have enough Navy left to win the kind of battle we fought in World Wars I and II. It would be the end of our capability to support in Europe. There is too much uncertainty in a Norwegian Sea campaign strategy for a President ever to accept it.

It is foolish to design our Navy for a Norwegian Sea scenario, as I believe the present 600-ship navy is designed, when the Navy is not going to get into that sea until it is too late to do much good.

I would suggest that my third assumption on this page is another one with which the Secretary of the Navy might not agree. That is that the future of warfare, land, sea and air, lies in modern reconnaissance, like satellites, that are going to tell us what is going on the surface of the globe anywhere, anytime in the future, and on unmanned missiles guided to their targets remotely.

Mr. Bennett. Which page are you looking at?

Admiral Turner. I am still on 12.

The third assumption, low performance aircraft with high performance missiles will soon be capable.

Mr. Bennett. I have it now.

Admiral Turner. In yesterday's Washington Post, there was something written very akin to this. That is the trend we are going to go to, and rather than trying to put a man in an aircraft over the target, tremendously high defense that can be created today.

For the Navy, what this means then is that the large deck carrier which is there to service heavy, high performance aircraft is not going to be necessary any longer. We will be able to use low performance, light aircraft, with very sophisticated weapons on them, and have more carriers at the same cost. We are going to need a lot more carriers to fight the kind of war that I think is most probable if we do fight with the Soviet Union.

PRIORITY NEEDS FOR IMPROVING SEA CONTROL FORCES

CAPABILITY	ASSUMPTIONS
1. SMALL AIRCRAFT CARRIERS FOR POINT DEFENSE OF SHIPPING	1. SEA CONTROL IS PERFORMED BY THREE TACTICS: - BLOCKADING/BOMBARDING ENEMY FORCES AT THEIR PORTS/BASES - ATTRITING ENEMY FORCES AS THEY MOVE TO ENGAGE OUR SHIPPING - POINT DEFENSE OF OUR SHIPPING AT SEA 2. LARGE CARRIERS ARE PRIMARILY USEFUL FOR BLOCKADING/BOMBARDING BUT THE SOVIET NAVY IS TOO POWERFUL TO RISK SENDING LARGE CARRIER FORCES WITHIN RANGE OF THEIR MAIN BASES 3. LOW PERFORMANCE AIRCRAFT WITH HIGH PERFORMANCE MISSILES WILL SOON BE CAPABLE OF PERFORMING ALL OF THE SEA CONTROL ROLES OF HIGH PERFORMANCE AIRCRAFT WHICH CAN OPERATE ONLY FROM LARGE CARRIERS
2. OTHER POINT DEFENSES DESTROYERS SSN AS ESCORTS DECEPTION DEVICES	1. POINT DEFENSE REQUIRES A VARIETY OF TACTICS TO SUM UP TO AN EFFECTIVE DEFENSE
3. IMPROVED MINES FOR THE ATTRITION	1. THE SOVIETS ARE AT A GEOGRAPHICAL DISADVANTAGE SUCH THAT MINEFIELDS AND OTHER BARRIERS CAN AFFECT ATTRITION.

PRIORITY NEEDS FOR IMPROVING STRATEGIC BOMBARDMENT FORCES

CAPABILITY	ASSUMPTIONS
1. MORE STRATEGIC BOMBARDMENT FORCES AT SEA, e.g. CRUISE MISSILES ON ALMOST ALL ATTACK SUBMARINES AND SURFACE SHIPS	1. THE COMBINATION OF PROLIFERATING NUMBERS OF WEAPONS, HAVING THEN MOBILE AND SOMEWHAT CONCEALABLE MAKES THIS THE BEST ROUTE FOR STRENGTHENING OUR ASSURED RETALIATORY FORCES.
2. IMPROVED COMMUNICATIONS	1. RETAINING THE INVULNERABILITY OF SEA-BASED DETERRENT FORCES, ESPECIALLY SUBMARINES, IS CRITICAL
3. MORE & SMALLER SSBNs	1. HAVING NUMBERS OF SUBS WILL HELP INVULNERABILITY MORE THAN HAVING LARGE SUBS; 2. SMALLER SUBMARINES ARE LESS LIKELY TO BE VULNERABLE TO FUTURE DETECTION SYSTEMS.

I will conclude by passing by the next two charts, Mr. Chairman. I take the strategic bombardment forces and list the kinds of improvements which need to be made there. And the next chart, tactical bombardment forces.

PRIORITY NEEDS FOR IMPROVING TACTICAL BOMBARDMENT FORCES

CAPABILITY	ASSUMPTIONS
1. SMALL CARRIERS	1. IMPROVED AIR DEFENSES MAKE CLOSE AIR SUPPORT INFEASIBLE TODAY
	2. RELIANCE ON HIGH PERFORMANCE MISSILES IS THE BEST WAY TO RESTORE THIS CAPABILITY. THEY CAN BE LAUNCHED FROM LOW PERFORMANCE AIRCRAFT
	3. MORE SMALL CARRIERS MAKE IT MORE LIKELY THAT WE'LL HAVE A CARRIER AT THE RIGHT PLACE AT THE RIGHT TIME.

And finally, on chart 15 I attempt to summarize these kinds of changes to our forces that this strategy drives us to make, and this puts it into a budget format.

SUMMARY OF MOST URGENT NEEDS FOR U.S. NAVY'S STRATEGY

FORCE	APPLICABILITY		
	INTERVENTION	NUCLEAR DETERRENCE	DEFENSE OF EUROPE
1. AMPHIBIOUS SHIPS IN BRIGADE SIZE UNITS	X		
2. SMALL CARRIERS WITH LOW PERFORMANCE AIRCRAFT AND HIGH PERFORMANCE MISSILES	X		X
3. CRUISE MISSILES ON SUBS AND SURFACE SHIPS		X	
4. DESTROYERS, SSNs AND DECEPTION DEVICES FOR POINT DEFENSE SEA CONTROL	X		X
5. IMPROVED COMMUNICATIONS FOR SSBNs		X	
6. MINES FOR ATTRITION SEA CONTROL			X
7. SMALL SSBNs.		X	

With this approach to strategy, the Navy would come to you requesting its budget for the future you then know exactly why these things are here, because you have seen the strategy evolve, seen the assumptions behind it, and you can question those assumptions, and see if changes in the priority are warranted.

CONCLUSIONS

1. Army and Air Force priorities can be established by this same process and, then, integrated with the Navy priorities into a Department of Defense priority list.
2. Congress could compare that priority list with the DOD budget request to determine it the budget reflected the strategy.
3. The fact that the assumptions were laid out clearly allows anyone questioning the strategy to debate it expressly.

On the last chart, I would conclude by suggesting that, the Army and the Air Force can develop exactly the same kind of strategic approach. And the Department of Defense can integrate those into an overall list, such as the one I have just shown you for the Navy.

The Congress could compare the strategy, and the priorities that derive from it, with the actual budget requests. If the Congress questioned the strategy, the assumptions behind it are laid out explicitly. You could call in the Chiefs of the Services and debate with them very explicitly on it.

That concludes what I have to say. I would suspect some of the members of your committee may not agree with the strategy I have evolved.

We could have a discussion on that or anything else where it might be helpful to you.

Mr. BENNETT. Well, I think you are very helpful in coming here. I admire your courage and your independent mind and resilience, and strength in your mind, things I have admired from a far for many years. And what you have done here today to put this in cryptic form, it has helped me to organize my own thinking about it.

There are aspects of the matters which might differ, if you have the same facts. Some of the material you deal with is not something we are going to be able to discuss too much in this open hearing. But you do point out directions, particularly in the field of the Norwegian Sea, the caution there of tying up large carriers in large numbers, that might be something we might not want to do.

Your desire to move to smaller carriers, there is a good deal to be said for what you propose. But I believe the difference probably is that I sort of feel like, when you are in a jungle fighting, the first thing I would want to have is a rifle, or a carbine, and other things, a knife and maybe some grenades, but all have priorities, they all have priorities.

The only thing I want to be with is the carbine or the M-1. I am anxious to do that. I don't want to go into a knife fight, if I can avoid it, and a grenade is a little more posturing thing. So it is a question of what kind of combat you anticipate and can afford.

When you apply that to big carriers, small carriers, I come up with the idea that the big carrier takes a long time to build, and has a tremenndous value from the standpoint of national defense. We can't build it in a short period of time. But we can build smaller ships more promptly, more cheaply.

They do jobs that are valuable to be done, and therefore, I have tended to lean toward the large ships mostly because I was hopeful, if we had a war we would more surely win it and therefore, to get the important things like the M-1 or the carbine, something I want to have. I won't waste away my time buying knives or grenades.

We can't get those things real quickly because it takes a long time to build, so that is the only real difference from my perspective and yours. And if we all had the same facts, and we spend a certain amount of money, we would come to the identical conclusion.

I am glad you are emphasizing the things you are because there is a tendency to get tied up in established common acceptance, and sometimes common wisdom is not the truth. People can have a common acceptance and time has run out on it. For instance, I am not saying it is absolutely certain, but I am saying, to me, it looks like we are operating in the field of nuclear weapon on a time which has run out.

I don't believe we are in the same position we were 15 years ago about nuclear war. I no longer think it is all that credible, after having the United States totally be devastated by a nuclear weapon, would operate to devastate Russia.

That is not as credible as it once was. I am for a stronger conventional defense in Europe. Congress seems to be thinking a little bit in that direction. Things do change and if you don't have critics of the system and common wisdom, sometimes the common wisdom may no longer be true. That is the reason I particularly welcomed you here as a witness.

Your analysis here is something I am going to study, and do so with great education to myself. There are a few specific questions I have.

You come out for brigades over divisions, with regard to the Marines, and I am not questioning that. How did you come to that conclusion?

Admiral TURNER. First, I believe the kinds of Third World interventions we are likely to participate in are not going to be like Normandy. A smaller size force will do.

Second, I believe that the Marines are an expeditionary force and they should not get tied down, as they were in I-Corps. Their job will be to go in and secure an airhead. The Marine commander should be saying, I am not going to be able to hold this airhead if you don't get somebody here in within the next 3 hours to support me.

Within 3 hours of his securing that airhead, I would expect the Army to start arriving. And I would hope the Marines would be out of there in a matter of days.

It is easier to aggregate brigade units into a division operation than it is to scale down.

Mr. BENNETT. You are so right.

Mr. Spence.

Mr. SPENCE. Thank you for your contribution. I value your judgment. Much of what you say to me is logical.

For example, you have to agree that within the Navy, as you have experienced, and when you were on active duty, people disagree on ships, we fought this aircraft carrier battle for years and years around here, and Congress bought the concept of full grown carriers, because of the wide open spaces.

The Indian Ocean, the Pacific, from the standpoint of keeping open the sea lanes, and where a larger carrier has more staying power. We have heard the arguments on both sides and nobody came forth with a different argument than we heard years ago.

I appreciate your contribution.

Mr. BENNETT. Mr. Bateman.

Mr. BATEMAN. Congratulations on a remarkably cogent statement, and the organization of your thoughts, whether or not you agree with all of them, is a very generous contribution to all of us to best address the kind of policy decisions that we on the committee from time to time have some role in.

You mentioned that you wanted us to make particular note as much or more of the methodology with which you address the subject, than you did the strategic conclusions.

I would like to ask some questions about that.

You were questioning of the forward strategy, fighting the offensive naval battle in the Norwegian Sea.

I am curious from the methodological aspect of this; do you believe that is a strategy arrived at by the Navy independently, without concurrence of the other major players, the Air Force, the Army, or is this a consensus strategy, naval strategy, that the other services have had an opportunity to evaluate, and to critique?

ROLE OF THE JOINT CHIEFS OF STAFF

Admiral **Turner**. I am sure the other services have evaluated it and critiqued it, sir, but I am critical of what comes out of the Joint Chiefs of Staff because it is the least common denominator agreement. We need to do something to get the Joint Chiefs of Staff to arbitrate between the four military services. I suspect the Chief of Staff of the Army and Air Force would fully support the maritime strategy in return for naval support of their strategies, not because they are enamored of it.

Mr. **Bateman**. I would not expect that. I would expect the members of the Joint Chiefs of Staff to be very forthcoming, both in terms of their discussions with their colleagues in the Navy, and their recommendations to the President and Secretary of Defense.

I am very disturbed that you think that kind of accommodation is the way to play the game.

Admiral **Turner**. It is the way it has been played for 40 years, sir. We put them in a very untenable position when we make them Joint Chiefs of Staff.

They have to look out for their own services, what is best in the Nation's point of view. If they come up with a conclusion that what is best for the Nation is not what their service wants, they have lost their powerbase, their basic constituency.

A Chief of the Navy cannot go into the Joint Chiefs of Staff forum and oppose more carriers. A Chief of Staff of the Army cannot go and say we don't need as many divisions, that the money would be better put into aircraft carriers.

I would separate the two entities, I would have service chiefs, four, of them, and I would have four Joint Chiefs, separate people. The Joint Chiefs would be officers who would not be allowed to return to their services ever. They could go to a unified command, SACEUR, CINCPAC, so on, but they and the Chairman would be the corporate body that made our national strategy, and made it in a way that would shape the budgets.

The chiefs of the services would procure what the budget provided for, would train the people and insure that the forces were kept in a state of readiness to be turned over to the four or five, counting the Chairman, Chiefs of Staff, who would operate them in wartime.

Mr. **Bateman**. Do you envision a significantly different role of the Chairman of the Joint Chiefs under that structural change than the role of the Chairman of the Joint Chiefs now?

Admiral **Turner**. I think the chairman does need to have the ability and the authority to speak up on his own to the President and the Secretary of Defense, not only as the chairman of the committee, having gotten consensus out of them. The augmentation of his role is less critical in my concept than it is in the ones being discussed, where the same men still wear both hats. He needs more authority over the staff, for example, under a program where there are still Service Chiefs filling the role of Joint Chiefs also.

Mr. **Bateman**. The matters of priorities as you have articulated them, the amphibious assault gets a very high emphasis in priority, and I understand that, and I am not inclined to disagree with it. But one of the things that bothers me somewhat, though, I don't see a corollary of sealift capability to sustain a successful amphibious assault.

If you put in a scenario, amphibious assault against a small land mass, and you dominate the territory, you don't need as much emphasis on sealift capability in sustaining that assault. But if you take a larger land mass, one of the worst things we might do would be very successful in an amphibious assault and have our forces wiped out because we could not sustain them.

Am I off the mark?

Admiral **Turner**. A very cogent and very appropriate comment. I left that out of here, because I concentrated on the combat functions. But I would agree with you, the sealift function is a very important one, and——

Mr. **Bateman**. You can't address the amphibious capability without concern for it?

Admiral **Turner**. Nor could you address the sustained combat of the Army and Air Force anywhere in the world without sealift. Airlift can only get you to the cutting edge there. That's very important, but needs to be beefed up also, I believe.

Mr. **Bateman**. Mr. Chairman, in the interest of time, I will suspend with that, though I suspect we could have days of interesting discourse on these matters.

Mr. **Bennett**. This hearing so far today has been full of that. In other words, there is nobody here I wouldn't like to spend a whole weekend with.

General Blaz.

Mr. **Blaz**. Thank you very much for your outright candor.

Your remarks are aways very invigorating, Admiral.

Many people use the European Theater as an example from which to draw some assumptions as to strategy.

Forgive me but I am from the Pacific, and look at the Pacific, the sudden realization of the Soviet Union, the balmy weather, and the warm waters are very attractive to them. And the great naval battles were fought in the Pacific, in my judgment, more so than in the Atlantic. And considering also that the President himself has said that that is the place where the future of the world lies, I am wondering if you might care to comment on just whether or not the strategy that you have proposed to us might be applicable to the Pacific Theater as well?

Admiral **Turner**. Yes, I believe it is; yes. The intervention that I would envision is much more likely to happen in the Pacific and Indian Ocean basins, than it is in the Atlantic basin.

With the Navy, we have a particular conundrum here. In peacetime leading to the possibility of brushfire wars, we are going to be needed much more in those two theaters than in the Atlantic. But if the war turns into a global war with the Soviet Union, I think the job of the Navy is going to be so great in the Atlantic that we are going to have to swing forces out of the Pacific and the Indian Ocean to do it.

So we have a real problem of potential maldeployment. If we should go into a general war as a result of a series of crises escalating, a war in Thailand or Pakistan for instances which builds up to the point where there is thrust by the Soviet Union across the German border, the Navy will be over in these other areas.

That comes back to the comment Mr. Spence made about these wide open ocean spaces.

Another reason I believe we need lots of aircraft carriers, is that we are going to have to have them in these other places like the Indian Ocean for these Third World contingencies, and by the time they could transit to the Atlantic they could be pretty late on the scene. So I am concerned about the focus of the Navy in 15 platforms when we have to worry so much about, I agree with you, about the Pacific and the Indian Ocean basins, as well as being prepared to concentrate almost all of our forces in the Atlantic when the time comes that there is a general war.

Mr. BLAZ. This may be the beginning of an amendment for a 700-ship navy.

Thank you, Admiral.

Mr. BENNETT. Thank you very much.

We appreciate your coming here, very educational.

The next witness is Rear Adm. Eugene Carroll, Deputy Director, of the Center for Defense Information.

The Center supports a strong defense.

Thank you very much for being here.

STATEMENT OF REAR ADM. EUGENE J. CARROLL, JR., U.S. NAVY (RETIRED) DEPUTY DIRECTOR, CENTER FOR DEFENSE INFORMATION; ACCOMPANIED BY CAPT. JAMES BUSH, U.S. NAVY (RETIRED) ASSOCIATE DIRECTOR, CENTER FOR DEFENSE INFORMATION

Admiral CARROLL. May I introduce Capt. James Bush, U.S. Navy retired, a nuclear submariner.

Having served under both admirals who testified before me, I share almost everything they said. I will, however, in my brief remarks be presenting a slightly different look at the problem of the 600-ship Navy, or the value, and I will be drawing largely from a new "Defense Monitor" just released today. "The Soviet Navy: Still is Second Best."

I would like very much to offer it as part of the record of the hearing, and discuss it.

Mr. BENNETT. We will put it in the record, but leave out the illustration.

Admiral CARROLL. It is pertinent to how big a Navy we need.

Mr. BENNETT. Thank you for offering it. It will be in the record.

[The following information was received for the record:]

THE DEFENSE
MONITOR

The Center for Defense Information supports a strong defense. It opposes excessive expenditures for weapons and policies that increase the danger of nuclear war. CDI believes that strong social, economic and political structures contribute equally to the national security and are essential to the strength and welfare of our country.

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The Soviet Navy: Still Second Best

Defense Monitor in Brief

- The Soviet Navy is designed to operate in waters adjacent to the Soviet Union. U.S. and allied naval forces entering those areas in wartime would face a formidable opponent.
- The Soviet Navy continues to lack the forces necessary to challenge Western dominance on the high seas. The West retains a decisive advantage in numbers and quality of oceangoing warships.
- Three of the Soviet Navy's four widely-dispersed fleets could be largely bottled up by U.S. and allied forces at the beginning of a war.
- Nearly 35 percent of the major warships in the Soviet Navy and 85 percent of those in the U.S. Navy can employ nuclear weapons. Any war fought between the U.S. and Soviet navies is likely to be a nuclear war.

The U.S. Navy is embarked on a massive expansion program. Under Administration plans, the Navy will buy 109 new ships between 1985 and 1989 at a cost of over $60 Billion. Administration and Navy officials justify this expansion as a response to the size and capabilities of the Soviet Navy. This year, Admiral John L. Butts, Director of Naval Intelligence, testified that "Moscow's commitment to achieving a true, blue water, balanced fleet, capable of challenging U.S. maritime supremacy anywhere in the world remains firm.... The challenge it will present to our position of world leadership is clear."

The weight of evidence suggests, however, that the U.S. Navy retains a significant edge over its Soviet counterpart. Since the 1960s, the Soviet Union has transformed its Navy from a strictly coastal force to the world's second most powerful navy. Nevertheless, the Soviet Navy is still designed to perform what are—by U.S. standards—relatively limited tasks, namely: the maintenance of the Soviet ballistic missile submarine (SSBN) fleet; the protection of those SSBNs from Western anti-submarine forces; and the protection of the Soviet coast from carrier-based aircraft strikes and amphibious invasion.

The greater part of the Soviet Navy still consists of surface warships and submarines with limited capabilities to operate on the open ocean. Those ships capable of steaming on the high seas lack the logistical support required to operate far from their home bases for extended periods. Moreover, ships from three of the Soviet Navy's four fleets must pass through narrow channels controlled by U.S. allies to reach the open ocean. In wartime those channels would be largely blocked.

Recognizing these constraints, Soviet naval forces have been designed primarily to maintain control of waters adjacent to the Soviet Union where their SSBNs can patrol in relative safety and through which Western carriers and amphibious ships would have to pass before they could threaten the Soviet coasts. Primary Soviet naval operations in wartime would focus on the destruction of enemy warships as they attempted to enter these "sanctuaries." The Soviet Navy would be a formidable opponent in these waters since it could use its coastal forces and land-based aircraft as well as its major combatant fleet. At the same time, some Soviet submarines would be used to interdict Western sea-based supply lines.

The Soviet Union and its allies continue to lack the forces necessary to challenge Western superiority on the high seas. The striking power of the U.S. fleet is centered around 14 large-deck aircraft carriers equipped with high performance aircraft. The Soviet Navy has no comparable ships. Only helicopters and low performance vertical takeoff and landing (VTOL) aircraft can operate from its three small *Kiev*-class carriers.

In wartime the U.S. Navy will be on the offensive. It will, according to Navy Secretary John Lehman, "seize the initiative" and "carry the fight to the enemy." If a conflict between NATO and Warsaw Pact countries does not escalate to the nuclear level immediately, U.S. planners intend to commit naval forces to operate against the Soviet fleet in its home waters. This strategy will initially involve U.S. attack submarines which are designed specifically to hunt Soviet submarines. If those waters can be successfully cleared of Soviet submarines, NATO aircraft carrier battle groups will follow.

The likelihood that a war between the U.S. and the Soviet Union will not be a nuclear war is very small. Both navies are trained and equipped to use nuclear weapons. About 35 percent of the major warships in the Soviet fleet and 85 percent of those in the U.S. fleet are equipped with nuclear-capable weapons systems. Warships are extremely vulnerable to nuclear attack and if a nuclear conflict erupts at sea losses will be very high. Moreover, it is probable that such a conflict would quickly spread to shore, triggering rapid escalation to the global nuclear level.

The Second Service

Historically, Russia has not depended on naval forces either to conquer foreign lands or to defend the homeland. For centuries the country has depended primarily on its ground forces. Most recently, in World War II, it was the Soviet Army supported by the Air Force which defeated the German invaders. Soviet naval forces played only a minor role.

Today, Soviet planning for a possible war with the West continues to stress the role of ground and air forces. In the unlikely event that such a conflict did not quickly trigger an all-out nuclear war, those forces would carry the brunt of any conventional offensive. The Soviet Navy would be assigned relatively limited though by no means unimportant tasks.

Along with the traditional role of homeland defense, the Soviet Navy is charged with the maintenance and protection of the sea-based leg of the Soviet strategic nuclear arsenal. According to the U.S. Defense Intelligence Agency, "Most Soviet general purpose surface, submarine, and naval air forces would likely be assigned initial wartime tasks [in waters adjacent to the Soviet Union] where they could provide both protection for SSBNs and defense against sea-based land-attack platforms." A smaller number of Soviet warships would be deployed on the open ocean and used to sink Western ships operating in more distant waters.

The Eternal Obstacle

Above all else, geography has forced the Soviets to emphasize ground and air forces rather than naval forces. The Soviet Union shares long land borders with much of Europe and Asia. In contrast, it suffers strictly limited access to the world's oceans. Its major ports are located along the coasts of the Barents, Baltic, and Black Seas in the west and the Sea of Japan in the east. Because these seas are isolated and widely dispersed, the Soviet Union must divide its navy into four separate fleets: the Northern Fleet, based at Severomorsk; the Baltic Fleet, based at Kaliningrad; the Black Sea Fleet, based at Sevastopol; and the Pacific Fleet, based at Vladivostok.

To reach the open ocean, almost all Soviet naval forces must pass through straits controlled by U.S. allies (see map). In wartime these "chokepoints" would be mined and heavily patrolled by Western naval forces, effectively bottling up the bulk of three of the four Soviet fleets.

Only the Northern Fleet and that part of the Pacific Fleet stationed at Petropavlovsk are not required to pass through narrow channels to reach the high seas. Passage to the open ocean would, however, be problematic for both of these forces. To move into the Atlantic, ships from the Northern Fleet would have to transit the Norwegian Sea and pass through the Greenland-Iceland-United Kingdom (GIUK) Gap in the face of NATO naval forces and land-based air power. Ships operating out of Petropavlovsk are constrained both by the isolation of that port, which limits its ability to support large deployments, and the fact that it is icebound at least six months a year.

The Soviet Surface Fleet

The Soviet Navy includes 288 major surface combatants. This category consists of ships designed to engage enemy surface ships, submarines or aircraft in combat directly. It includes three small *Kiev*-class VTOL carriers, two *Moskva*-class helicopter ships, and 283 cruisers, destroyers and frigates. These latter three classes of ships are distinguished from one another largely by size, with the largest ships designated cruisers and the smallest frigates.

The Soviet surface fleet bears little resemblance to its U.S. counterpart. The U.S. surface fleet is designed to operate on the open ocean, far from home, for extended periods. It is organized around large-deck aircraft carriers capable of attacking both enemy surface ships and targets on land. In contrast, the Soviet surface fleet is designed primarily to hunt

Q: "What are the Russians afraid of?"

A: "Our superior tactical aircraft at sea is number one. . . . Our superior SSN [nuclear-powered attack submarine] are better—probably five to eight years in technology. . . . We have a superior cruise missile which the Soviets cannot emulate. . . . We have an amphibious force they cannot match. . . . Weapons systems individually in my judgment are superior to the individual weapons in Soviet combatants."

Admiral James D. Watkins
Chief of Naval Operations
Senate Armed Services Committee, March 1984

Western submarines in waters adjacent to the Soviet Union. It has only a limited capability to operate on the open ocean and to combat enemy surface warships.

Half a Blue Water Fleet

Less than half the Soviet Navy's major surface combatants can operate safely and effectively on the open ocean. With displacements of well under 2,000 tons apiece, 145 of the Soviet Navy's frigates are too small to be used far beyond coastal waters. On rough seas, which are routine in the northern latitudes of the Atlantic and Pacific Oceans, these ships cannot use sonar and other important equipment or operate at the high speeds often required in combat. The Soviet Navy's 106 cruisers and destroyers and 32 newest frigates displace over 2,000 tons. Together with its allies the Soviets can put to sea a total of 145 such ships. By comparison, the U.S. and its allies have a much larger open ocean fleet: 479 Western surface warships displace over 2,000 tons.

Those Soviet surface warships large enough to conduct sustained operations on the open ocean are constrained from travelling too far from home because of the Soviet Navy's very limited ability to provide fuel, ammunition and other supplies to its ships at sea. Warships consume vast amounts of supplies. For example, a single U.S. carrier battle group requires nearly 10,000 barrels of fuel every day. The U.S. Navy operates 53 replenishment ships with displacement totalling about 1,413,000 tons. The Soviet Navy has 85 much less capable replenishment ships which displace a total of only 570,000 tons.

One way the Soviet Navy could partially overcome the deficiencies of its support fleet would be to develop bases abroad. However, in this area as well, Soviet success lags far behind that of the U.S. The U.S. operates 57 naval facilities in 17 countries and dependencies around the world. The Soviet Navy has access to a variety of facilities in Eastern Europe along the Baltic and Black Sea coasts, but it operates only a handful of small support facilities beyond these essentially land-locked waters—in Cuba, Angola, South Yemen, Syria, Ethiopia and Vietnam.

Lack of Sea-Based Aircraft

Air power would play a decisive role in any future war at sea. The Second World War demonstrated that surface ships are relatively easy prey for aircraft unless they have air cover of their own. This can be provided by friendly aircraft based either on land or at sea.

The West enjoys a decisive superiority in sea-based air power. The Soviet Navy's three *Kiev*-class carriers are equipped with only 13 VTOL aircraft and 19 helicopters apiece. By comparison, the U.S. Navy's 14 large-deck aircraft carriers are each equipped with about 60 high performance fighter and attack aircraft and 25 early warning and anti-submarine aircraft and helicopters designed to protect the carrier. Altogether, active U.S. carrier air wings include about 1,100 aircraft and helicopters. The U.S. naval reserve could contribute an additional 160 in wartime.

Surface-to-air missile (SAM) systems are carried by 107 of the Soviet Navy's major surface combatants. These systems provide some protection against aircraft strikes but they are no substitute for the defense in depth provided by fighter aircraft.

Since the Soviet Navy lacks any meaningful carrier-based air power, its surface fleet would have to depend almost entirely on land-based aircraft to provide air cover in wartime. Moreover, because the Soviet Union has access to so few overseas bases and because the few it does have access to would be easily isolated in wartime, the Soviet Navy would have to rely almost exclusively on aircraft based in the Soviet Union.

Soviet land-based aircraft could provide air cover for warships operating within several hundred miles of Soviet coastal waters. Moreover, the 395 long- and medium-range bombers assigned to Soviet Naval Aviation could attack U.S. and allied surface ships operating out to perhaps 1,000 miles beyond the Soviet coast. Western surface ships which attempted to move across this perimeter would come under progressively more concentrated aircraft strikes.

Sea-Based Nuclear Forces

The primary task of the Soviet Navy is to maintain the sea-based component of the Soviet strategic nuclear arsenal. This force consists of 61 modern *Delta*, *Typhoon*, and *Yankee*-class nuclear-powered ballistic missile submarines (SSBNs), one old *Hotel III*-class SSBN and one old *Golf*

Peacetime Activities

In peacetime both the Soviet Union and the U.S. operate warships in regions where they believe a visible military presence might bolster their diplomatic initiatives. Because of the lack of political constraints on the movement of ships at sea, naval forces can be used to establish a military presence much more easily than ground or air forces.

This modern form of gunboat diplomacy is used extensively by both countries. The Soviet Navy generally operates 10 to 15 percent of its oceangoing fleet in distant waters. The largest Soviet deployments are in the Mediterranean Sea, the Indian Ocean and the South China Sea.

The U.S. Navy maintains a far more impressive overseas presence. The U.S. deploys about 30 percent of its fleet in distant waters. Moreover, U.S. warships deployed away from home generally spend about 55 percent of their time at sea while Soviet warships typically spend all but a small fraction of their time in port. For example, Soviet warships stationed in the Caribbean from November 1982 to January 1983 spent 52 of their 68 days in Cuban ports.

It is important to remember that the ability of naval forces to operate in distant waters in peacetime tells us nothing about whether they could operate there effectively in wartime. In peacetime Soviet warships are not affected either by the dominance of Western air power or the existence of geographical constraints which, in wartime, would make distant operations extremely hazardous.

NAVAL BATTLE FORCES COMPARISON

	U.S.S.R.	U.S.S.R. & Allies	U.S.	U.S. & Allies
Large-Deck Aircraft Carriers:	0	0	14 **	16
Helicopter and VTOL Ships:	5	5	12 *	18
Major Surface Combatants				
Over 2,000 tons:	138	145	198	479
Under 2,000 tons:	145	156	0	82
New Attack Submarines				
Nuclear-powered:	73	73	69	79
Diesel-Electric:	23	23	0	86
Old Attack Submarines				
Nuclear-powered:	47	47	25	30
Diesel-Electric:	140	149	4	69
Amphibious ships:*	78	102	60 *	163
(thousands of tons)	(204)	(248)	(956)	(1,371)
Replenishment ships:	85	95	53	93
(thousands of tons)	(570)	(565)	(1,413)	(2,022)

Allies: U.S. allies include the NATO countries plus Japan, South Korea, the Philippines, Australia and New Zealand. Soviet allies include the Warsaw Pact countries plus Vietnam and Cuba.

Major Surface Combatants: These include all cruisers, destroyers and frigates currently in service. Those displacing 2,000 tons or more include cruisers, destroyers and some frigates. All of those displacing under 2,000 tons are frigates.

Attack Submarines: For purposes of this table, a submarine is considered new if the first submarine of its class was launched in 1965 or later and old if the first submarine of its class was launched before 1965.

**One carrier is currently being modernized through the Service Life Extension Program and is not immediately deployable.

*The U.S. Navy's 12 amphibious assault ships can function as VTOL and Helicopter ships as well, and thus are counted in both categories.

Chart prepared by Center for Defense Information

III-class diesel-electric ballistic missile submarine. These boats are equipped with 924 missiles carrying a total of about 2,200 nuclear weapons. The relative importance attached to the SSBN fleet is reflected in the Soviet shipbuilding program of the past several decades. Measured in tonnage, SSBNs accounted for nearly 45 percent of major Soviet warship construction completed between 1964 and 1979.

Despite its primacy within the Soviet Navy, the SSBN fleet remains an inferior leg of the Soviet triad of strategic nuclear forces. The Soviet Strategic Rocket Force is much larger. It consists of 1,398 land-based missiles carrying about 6,250 nuclear weapons. By comparison, the U.S. places much more emphasis on its SSBN fleet. Its 37 SSBNs are equipped with 640 missiles carrying about 5,725 nuclear weapons.

The unique ability of SSBNs to survive beyond the initial salvo of a nuclear war makes them particularly useful as a nuclear "reserve" and a hedge against surprise attack. Because the locations of bomber bases and land-based missile silos are fixed and known, their chances of surviving beyond the first few hours of nuclear conflict are slim. In contrast, SSBNs can hide in the ocean depths for months. They are invulnerable so long as they are not located by enemy anti-submarine warfare (ASW) forces.

Soviet SSBNs enhance their survivability by sticking close to home in underwater sanctuaries in the Barents Sea and the Seas of Japan and Okhotsk where Soviet naval forces can protect them from Western ASW forces. The Soviet Navy's 37 *Delta* and three *Typhoon*-class SSBNs are equipped with long-range missiles, many of which carry more than one nuclear warhead. Altogether, these boats account for about 1,850 (84 percent) of the nuclear weapons carried by the Soviet SSBN fleet. These SSBNs need never leave their sanctuaries. The 4,000-plus mile range of their missiles allows them to launch strikes against the U.S. while they remain on patrol near the Soviet Union. The 21 Soviet *Yankee*-class SSBNs are equipped with 332 shorter-range missiles. To hit targets in the U.S., these boats would have to move to within some 1,600 miles of the U.S. coast. The Soviet's single old *Hotel III* and *Golf III*-class ballistic missile submarines carry only six long-range missiles apiece.

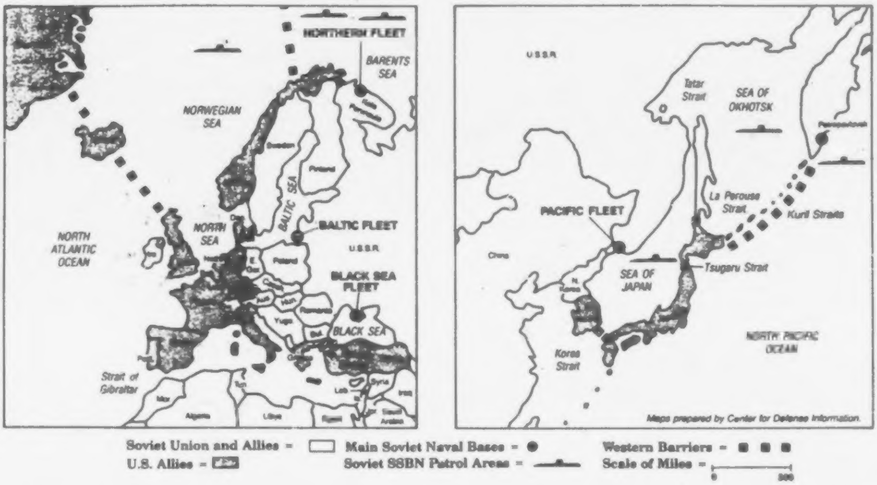
The Soviet Navy also includes 13 old *Golf II*-class diesel-electric ballistic missile submarines. These boats each carry three 750-mile range missiles. They are considered "theater" nuclear weapons by the U.S. government since they can only hit targets in Europe or the Far East where the submarines are deployed.

Challenging the SSBN Sanctuaries

In wartime the U.S. and its allies could send powerful naval forces into the Soviet SSBN sanctuaries. U.S. attack submarines pose the greatest threat to Soviet SSBNs. Unlike SSBNs, attack submarines are designed to combat either enemy surface ships or submarines. They are armed with torpedoes and, in some cases, anti-ship cruise missiles. The U.S. Navy's 94 nuclear-powered attack submarines are designed specifically to hunt Soviet submarines.

Navy Secretary John Lehman and Admiral James D. Watkins, Chief of Naval Operations, have stated that U.S. attack submarines would be sent into Soviet home waters early in a conflict. They have generally held that these boats would be used primarily to sink Soviet attack submarines deployed there. Nevertheless, according to Secretary Lehman, U.S. submarines would also attack Soviet SSBNs "in the first five minutes of the war."

The Soviet Navy: Ships in Bottles


NORTHERN FLEET
BARENTS SEA
NORWEGIAN SEA
NORTH ATLANTIC OCEAN
NORTH SEA
BALTIC SEA
BALTIC FLEET
U.S.S.R.
BLACK SEA FLEET
BLACK SEA
Strait of Gibraltar
Algeria
Libya
Syria
Iran
U.S.S.R.
Tatar Strait
SEA OF OKHOTSK
PACIFIC FLEET
La Perouse Strait
Kuril Straits
Tsugaru Strait
SEA OF JAPAN
China
Korea Strait
NORTH PACIFIC OCEAN
Soviet Union and Allies = ☐
U.S. Allies = ▨
Main Soviet Naval Bases = ●
Soviet SSBN Patrol Areas =
Western Barriers = ■ ■ ■
Scale of Miles =
0
300

Maps prepared by Center for Defense Information.

In 1984 Admiral Watkins explained that initial U.S. wartime strategy would involve "a very carefully planned and coordinated rollback operation with heavy [submarine-to-submarine] combat in the upper Norwegian Sea." This strategy calls for the same type of "rollback" operation in Soviet SSBN operating areas in the Barents Sea and the Seas of Japan and Okhotsk. If U.S. attack submarines are able to destroy a substantial portion of the Soviet submarine fleet in those waters, U.S. carriers would be sent in to attack Soviet surface ships and land targets. As Admiral Watkins went on to say, "If we can eliminate the bulk of the surface ships and submarines . . . which is our objective, then the Soviets will have a heck of a problem with their land-based air as the only real mechanism remaining to deal with us."

The wisdom of sending U.S. naval forces into the Soviet SSBN sanctuaries in order to destroy Soviet naval forces is questioned by many experts, including some U.S. Navy officers. It is feared, in particular, that the Soviets might respond to U.S. attacks on their SSBNs by launching preemptive nuclear strikes against the threatening naval forces, thereby triggering a nuclear exchange.

Surface Ships and the Sanctuaries

In wartime most of the major surface combatants in the Soviet Northern and Pacific Fleets would be used to hunt Western attack submarines operating within the SSBN sanctuaries. A few of these ships carry anti-ship cruise missiles designed for use against Western surface warships.

The Soviet Navy's 177 frigates have sonars for submarine detection and carry depth charges, ASW torpedoes and multiple rocket launchers that fire high-explosive charges into suspected submarine locations. The 32 modern oceangoing *Krivak*-class frigates are equipped with advanced "variable depth" sonar and the SS-N-14 rocket-propelled ASW weapon (which carries an ASW homing torpedo). None of these ships carry anti-ship cruise missiles.

Most of the Soviet Navy's 106 destroyers and cruisers are optimized for ASW as well. Older ships of both types are equipped with sonars and ASW weapons similar to those found aboard the small Soviet frigates. The SS-N-14 is carried by 26 of the most modern cruisers and destroyers. A few of these also employ variable depth sonar and ASW helicopters.

The Threat

> "I am not starting with the here is the threat, 'the Russians are coming' kind of thing that is generally done. . . . We are the threat, not they. The submarines we have are extraordinarily good. The Soviets have a paranoid fear of our attack submarines."
>
> Admiral Kinnaird R. McKee
> Director of Naval Nuclear Propulsion, March 1984

Western Navies Superior

"We feel that taken together, our allied navies, along with our own 600-ship Navy, are clearly superior. They can do the task that we need them to do against the Soviets' ability to interdict."

Navy Secretary John Lehman
March 14, 1984

Only 27 Soviet cruisers and destroyers carry anti-ship cruise missiles. These missiles have maximum ranges of from 50 to 350 miles. The longer ranges can only be attained if a special aircraft or helicopter locates the enemy ship and radios targeting information back to the launching ship. This procedure would be difficult on the open ocean where Western air power is likely to control the skies but it would be possible closer to home. These ships could launch formidable salvos against Western surface ships which approached Soviet waters.

In wartime the three *Kiev*-class VTOL carriers and the two *Moskva*-class helicopter ships would be used primarily to hunt U.S. submarines as well. Each *Kiev*-class ship is equipped with 16 ASW helicopters. Each *Moskva*-class ship carries 14. In conjunction with Soviet cruisers, destroyers and large frigates, these ships would hunt submarines in the outer reaches of the sanctuaries operating perhaps 200 to 500 miles from Soviet coastal waters.

Soviet Attack Submarines

In wartime the Soviet Navy's 283 attack submarines would pose a more formidable challenge to Western naval forces than its surface fleet. Because submarines generally operate submerged they are much less vulnerable to aircraft strikes than are surface warships. They are thus better suited for wartime operations in distant waters where the West is likely to control the skies.

Since the end of World War II, the Western allies have been concerned that Soviet attack submarines might be able to cut the sea lanes, particularly those across the Atlantic connecting the U.S. and Western Europe. The Germans attempted to cut Britain's lifeline to the U.S. during both World Wars and nearly succeeded both times. If war broke out in Europe today some 90 percent of U.S. reinforcements and supplies would have to be delivered by ship.

Most Soviet attack submarines, however, would probably not be used against Western shipping in wartime. The estimated 135 attack submarines in the Soviet Northern Fleet would be in the best position to reach the shipping lanes of the Atlantic. Submarines in the Soviet Baltic and Black Sea Fleets would be largely bottled up behind channels controlled by U.S. allies. A distance of over 2,000 miles separates the Atlantic shipping lanes from the home waters of the Soviet Northern Fleet. Those attack submarines assigned anti-shipping duties would have to transit this distance and slip past NATO ASW forces stationed in barriers along the way (see map).

Many of the Soviet Navy's 163 diesel-electric attack submarines could not be used effectively against merchant shipping even if they were stationed with the Northern Fleet. Diesel-electric submarines are so slow that a good part of each patrol would be spent simply making the 2,000 mile trip from port to the shipping lanes and back again. The oldest Soviet diesel-electric boats dating from the early 1950s are so inefficient that they could spend only about 25 percent of each patrol actually in the shipping lanes.

The Soviet Navy's 120 nuclear-powered attack submarines do not suffer from range limitations. Since nuclear-powered submarines can attain high submerged speeds, less time would have to be spent in transit. The chief shortcoming of Soviet nuclear-powered submarines is their high operating noise. The older boats are so noisy that NATO ASW forces would very likely detect them if they attempted to break into the Atlantic.

NATO land-based P-3 patrol planes and attack submarines from various NATO navies would in wartime guard the GIUK Gap and other areas through which Soviet attack submarines must pass to reach the Atlantic shipping lanes. P-3s use air-dropped sensors for acoustic detection. Western attack submarines rely on both towed sensors and sensors in their bows to hear Soviet submarines. All of these systems are aided by a network of hydrophones permanently emplaced on the ocean floor which can detect submarines operating hundreds of miles away.

Because they are much quieter than their predecessors, some modern Soviet nuclear-powered attack submarines could slip past the various NATO ASW barriers into the Atlantic. Most of the estimated 75 nuclear-powered attack submarines presently in the Northern Fleet are *Victor* and *Charlie*-class boats, first introduced in the mid-1960s. These submarines could present a serious problem for Western shipping if sent into the Atlantic. However, most of those boats would likely be deployed near the SSBN sanctuaries and used to combat Western warships.

At most the Soviets could probably maintain 40 attack submarines, including both later diesel-electric and nuclear-powered types, on patrol in the Atlantic shipping lanes. Western ASW forces should be able to cope with this force. During the darkest days of the Second World War the Germans had over 100 attack submarines simultaneously on patrol in the Atlantic. The Soviet submarines that get out will be much more capable than German U-boats, but so too will be the ASW forces of the allies.

Attack submarines stationed with the Soviet Pacific Fleet could likewise be used against the sea lanes linking U.S. Pacific allies to the U.S., Europe and the Persian Gulf. The Pacific Fleet includes about 55 diesel-electric and 40 nuclear-powered attack submarines. These are generally old boats, however, ill-suited for the anti-shipping role. Moreover, about 25 percent of them are stationed in the Sea of Japan from which transit to the open ocean would be extremely difficult in wartime.

Attacking Western Warships

Most Soviet attack submarines would probably be used in wartime to attack U.S. and allied warships rather than merchant ships. Their primary task would be to protect SSBNs from approaching Western attack submarines and carrier battle groups. They could be used with potentially lethal effect in this role.

Soviet attack submarines are much better equipped to carry out attacks against approaching warships than to conduct distant patrols against merchant shipping. The range limitations that would plague diesel-electric attack submarines assigned anti-shipping duties would not seriously affect their performance if deployed close to home. While moving slowly and running on their batteries, diesel-electric submarines are very quiet. It would be difficult for NATO ASW forces to detect them if they simply waited for NATO aircraft carriers and other surface ships to approach to within range of their torpedoes or anti-ship cruise missiles. Soviet nuclear-powered attack submarines could also be used more effectively close to home. Since they would not have to transit NATO ASW barriers they would be much less vulnerable to detection.

The Conscript Navy

The Soviet Navy has approximately 490,000 active duty personnel. The U.S. Navy has 561,000. Seventy-five percent of Soviet naval personnel are conscripted. The U.S. and British Navies are made up entirely of volunteers. Other Western navies maintain a ratio of conscripts-to-volunteers much lower than the Soviets. Less than 10 percent of Soviet naval personnel re-enlist due to poor pay and living standards, resulting in a 30 percent annual turnover rate. By comparison, over the past few years first term re-enlistment in the U.S. Navy has exceeded 50 percent. Career personnel re-enlistments have exceeded 80 percent. High re-enlistment rates afford the U.S. Navy much higher levels of skill and experience than the Soviet Navy.

The Soviet Navy includes 43 *Victor*-class nuclear-powered attack submarines designed to hunt Western submarines. They are equipped with large sonars and the SS-N-15 antisubmarine rocket (much like the SS-N-14 described above). These submarines would form ASW barriers within the SSBN sanctuaries analogous to those formed by NATO attack submarines across the GIUK Gap.

U.S. and allied warships would have a difficult time fighting their way into sanctuaries guarded by large numbers of attack submarines. U.S. aircraft carriers which approached these waters would be top priority targets for Soviet attack submarines. The Soviets would be willing to risk the loss of several submarines for a chance to sink a U.S. carrier. In the face of vigorous submarine attacks the U.S. naval commander would feel intense pressure to use nuclear ASW weapons. Once one side resorts to the use of nuclear weapons the other will surely follow. Such an exchange at sea might very quickly spread to shore and trigger an all-out nuclear war.

Amphibious Warfare

The Soviet Union emphasizes amphibious forces far less than the U.S. The Soviet Amphibious Warfare fleet consists of some 78 relatively small ships displacing a total of about 204,000 tons. By comparison, the U.S. fleet includes 60 amphibious warfare ships displacing about 956,000 tons. Likewise, the Soviet "Naval Infantry" force, numbering 16,000, is totally outmatched by the U.S. Marine Corps' 198,000 personnel. Soviet-bloc allies add only 24 amphibious warfare ships displacing 44,000 tons and 9,100 marines to the Soviet force. U.S. allies provide an additional 103 ships displacing 415,000 tons and 61,700 marines. Soviet amphibious forces would most likely be landed behind enemy lines and used to conduct small-scale raids.

Trends

The capability of the Soviet Navy has increased greatly over the past several decades. The most dramatic additions to that force include the three *Kiev*-class VTOL carriers, several significantly quieter classes of submarines and the long-range *Backfire-B* bomber. In general, later Soviet warships are larger and better equipped than their predecessors.

Some observers speculate that the Soviets are constructing a Navy that could contest Western dominance on the high seas. This view seems unfounded. For the most part Soviet warships introduced throughout the 1970s and up to the present are designed for the more limited tasks outlined above. For example, only about 25 per cent of the major surface combatants added since 1980 carry anti-ship cruise missiles. ASW weapons continue to make up the primary armament of most new ships.

Much attention has been focused on the Soviet Union's construction of its first large-deck aircraft carrier, expected to enter service in the mid-1990s. Yet the existence of a single Soviet large-deck carrier comparable to the U.S. Navy's 14 will not seriously diminish the U.S. advantage in sea-based air power.

While the capability of individual Soviet warships is increasing, the rate of warship production has actually fallen since the late 1970s. Between 1977 and 1980 the Soviets annually produced an average of about 24 major surface combatants and submarines and 56 minor surface combatants. Between 1981 and 1984 they annually produced an average of only 19 major surface combatants and submarines and 48 minor surface combatants. During the 1970s the U.S. and its allies actually outbuilt the Soviet Union and its allies by producing 53 more warships displacing 62,500 more tons.

Conclusions

- The Soviet Navy is inferior to U.S. and allied navies in numbers and capabilities of oceangoing warships. Its weak supply capability and lack of sea-based air power, coupled with geographic handicaps, would force most Soviet warships to stick close to home in wartime.
- The Soviet Union will not be able to challenge the West for control of the open ocean in the foreseeable future.
- In wartime, most Soviet warships would be used to protect Soviet ballistic missile submarines in seas adjacent to the Soviet Union. In those waters, supported by coastal warships and land-based aircraft, they would present a formidable challenge to Western naval forces.
- Soviet attack submarines would pose a significant danger to Western warships, particularly if those warships approached Soviet waters. The submarine threat to Western warships and merchant ships operating on the open ocean is much less severe.

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We report with deep regret the passing on July 30 of Dr. Herbert Scoville, Jr., long-time friend and advisor to CDI.

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STATEMENT OF REAR ADM. EUGENE J. CARROLL, JR.—Continued

Admiral CARROLL. Admiral Kidd asks the question often. Six hundred ships for what? What kind of ships?

And that is the heart and soul of how big a navy we need, and what kind of ships it has.

I intend to sketch very briefly the reason why we believe that the 600-ship Navy being built today is probably the wrong navy for the wrong war, and we draw this conclusion in part from information recently provided to you by the Navy in the House Armed Services Seapower Subcommittee hearing of June 24. The 600-ship Navy was presented by the naval leadership.

You find a rather logical description of how this navy will be structured, until you get to phase 3, carrier battle force strike warfare options. Here the full weight is being used to roll up Soviets on the flanks, contribute to the battle in the center, and carry the war to the Soviets themselves.

These strike warfare campaign requirements drive our requirements for missiles, attack aircraft, and their platforms. The leadership is linking this mission and what they want in the Navy.

The diagram which accompanies this, very difficult to read on this particular presentation, but it displays the U.S. Navy rolling back and entering into the home waters of the Soviet Union, the Barents Sea, Baltic Sea, fighting in the eastern portion of the Mediterranean, present throughout the Indian Ocean, attacking Soviet bases and facilities on the Pacific Coast.

Now, if this is the strike warfare option of the 600-ship Navy, 600 ships are not enough. Fifteen carrier battle groups are not enough.

I say this as a carrier aviator with more than 30 years in carriers, every role from squadron pilot to taskforce commander. We cannot attack and attrite a major land-based power from sea bases as we did in World War II.

In this description, place the word "Japan" in place of Soviet Union, and you will see that we are describing winning World War II again with seapower. Roll them back and carry the war to the homeland, attrite their forces in their home bases. That is not a possibility anymore.

One, the Soviet Navy is not a blue water navy. We often hear testimony that we are now threatened in the open ocean areas of the world but the Soviets lack the air cover and base support structure to sustain combat operations in the open sea. Many, many, of the Soviet ships are designed for ineffective coastal defense operations.

If you envision the Soviets doing what they must do very early on in any general war, withdraw to their home waters, to the basins, they then become an extremely formidable opponent. We can defeat them beyond question in the open ocean, but in their own home waters where they gather the benefits of land-based air and their coastal defenses, and have their smaller ships and antisubmarine elements particularly, they then become a fearsome defensive force.

I say with firm personal conviction that 15 battle groups will not wear down and defeat that force and enable us to attrite the Soviet facilities and bases in the homeland.

Let me rule out that objection for just a moment and assume we are succeeding. Somehow or another, Yankee knowhow has overcome these strong defenses, and we are now approaching the phase where we begin to defeat the Soviet Union in their own nation.

We have said in NATO that if this situation exists in the opposite direction, if the Warsaw Pact has attacked, and is wearing down and defeating the NATO forces, that we reserve the right to make first use of nuclear weapons to repel a successful Warsaw Pack attack.

That is firm, explicit NATO doctrine. I cannot conclude that the Soviet Union would be any more inhibited in the use of their some 25,000 nuclear weapons against our carriers and amphibious forces if it appeared they were losing the battle at sea.

It is much less risky for them to engage in a nuclear defense at sea than it is for us to engage in a nuclear defense on land.

The probability that the conflict will go to general strategic war in Europe is almost certain, according to General Rogers, and a little less clear. And the Soviets would elect that chance before they accepted defeat from the sea.

It is the wrong strategy, and we are not building a navy big enough to carry it out in any event.

I draw on the comments of Admiral Kidd and Admiral Turner who say our primary role is to reinforce and resupply our allies, in the Atlantic and the Pacific. In order to do this, we must maintain control of the sea. We don't have to go into the Soviet basins and engage in a war of attrition and lose these very precious ships for which there are no replacements.

We need to use our strength where we are clearly predominant and deny the Soviets access to the open seas and defeat their one real threat, their submarine force. This is a formidable task in any environment. The first step is a form of sea control, called sea denial.

You get more sea denial capability, dollar for dollar, with a strong offensive mine warfare capability than any other way you can invest a dollar. No doubt in my mind, because of their geographic constraints, maritime choke points through which they must travel to the open sea, a strong program by the U.S. Navy would attrite their submarines very rapidly and deny them effective access to the open sea.

Mine fields can be supplemented by submarine barriers with our SSN's, and if we think it through in years to come, conventional submarines.

Diesel electric submarines would be very useful for barrier duty to attrite the submarines further and deny them access to the open sea. Then you clearly need protection against their subs that get through, and there will be some that get through. If you go back to the description of 6,000 shiploads of material moving through the Atlantic alone you see that we need more ASW forces throughout the Atlantic and Pacific.

We need more frigates. We need more P-3 aircraft. We need more LAMPS helicopters. And yet because of the tremendous priority being given to the forward maritime strategy, we are shortchanging these very forces. The Mine Warfare Program is being cut, the Frigate Program accounts for only 8 percent of naval construction for the next 15 years. Also, in helicopter production the buy is being cut back, so that the very area in which we are demonstrably at risk is the area in which we are cutting back our capabilities in order to push forward on the strike warfare end.

According to CBO from now to the end of the century, we will devote 41 percent of our total ship construction cost to the carriers, destroyers which accompany them, and another 28 percent to the SSN's which are part of the roll back strategy. And that leaves less than one-third of the total construction funds to build these antisubmarine elements we need for sea control.

If you also look at pulling back from the harm's-way strategy, and think about what kind of air capability you need, you come to the conclusion Admiral Turner noted. We don't need supersonic airplanes to control and defend the open sea, we only need those to go against Soviet strength in their own home waters.

That is why you need F-14's, and F-18's. If you are in the open sea, you can use slower airplanes.

As a task force commander I have asked for airplanes with endurance, not speed, with good radars, good missiles that I can put in the air and protect my forces for hours on end instead of having to capture these supersonic rascals every hour and 45 minutes on a carrier deck. There is a difference in the character of the air units you need, if you go away from this idea of going into harm's way and attacking the Soviet Union in their area of greatest strength.

The primary task, the maintenance of our allies, reenforcement, resupply in the Atlantic and Pacific, we need more sealift. Ninety percent of what we are going to be doing over there has to be by sea and we are critically short of good, modern sealift.

We need to take a much harder look at our people situation. For 2 years, I was the Director of the U.S. Navy's Personnel and Manpower Planning Programs. I am acutely aware of how thin the line is between meeting our personnel needs and falling short. We are approaching that time, when as the 600-ship Navy emerges, more complicated, more sophisticated, requiring more and better people to maintain it, we are also entering a period when the pool of manpower—manpower in this case, people eligible for duty on warships—is shrinking.

We are not funding the personnel budget nearly to the degree we are funding the procurement budget, because we are going for the hardware, frontloading to get the equipment and trying to look into the future to find the resources to support and maintain and man those forces.

I ask you to think about our future manpower requirements in the 600-ship Navy and consider it as one of the Navy's vulnerable areas.

I would suggest that in this sense the idea of spreading our forces out further to new bases is costly in dollars, but also in people.

You will have to have people at every one of those facilities for security, communications, supply, every function that every naval base must provide to the ships based there. We will see manpower requirements driven up by our Strategic Dispersal Program which doesn't make military sense.

The last thought I would leave in this very brief summary of the kind of 600-ship Navy we need and the missions we should be prepared to perform with greater ability and better equipment is to take a hard look at the impending budget requirements for the SSN-21, the new follow-on to the *Los Angeles* class. It will be capable of doing everything an attack submarine can do.

The point is, we don't need all of our submarines to be perfect submarines, to be capable of operating under ice, and operating in the Bering Sea and so on. We may need a number of submarines less capable in barriers to deny the Soviet Union access to the sea so perhaps we need a mixture of *Los Angeles* class and some lower level capability submarine in larger numbers.

You will be asked for money—and already have been—for the JVX tilt rotor aircraft, a high-performance aircraft to do things that we do now with low-performance planes. The only requirement for ultrahigh performance in the offensive strike warfare operation.

Can we afford this new submarine in a 600-ship Navy, and the new advanced technology aircraft?

There are very good reasons to consider less sophisticated, lower performance but more economical submarines and aircraft that could perform the sea-control role very effectively.

I await your questions after this quick overview.

PREPARED STATEMENT OF REAR ADM. EUGENE J. CARROLL, JR., USN (RET.)

Mr. Chairman and Members of the Committee:

I welcome this opportunity to appear before your distinguished Committee and to present the views of the Center for Defense Information on the policies and programs of the United States Navy. I served in the U.S. Navy for 37 years. I am proud of my service and of the Navy's role in providing for our country's defense as the strongest Navy in the world.

The Center for Defense Information strongly supports efforts to improve our navy's ability to perform essential missions. Unfortunately, the naval modernization and expansion program currently underway is in part misdirected. "The 600-ship Navy" is a slogan and a political statement, not a definition of U.S. Navy requirements. Six hundred of the wrong kinds of ships will not increase our security and will steal resources away from what ought to be higher priorities. If carried through to completion current plans will aggravate the existing mismatch between the forces we have and the valid defense missions of the U.S. Navy.

It is very widely, and I think correctly, believed that the U.S. Navy must ultimately be prepared for a war with the Soviet Union. We all hope and pray that such a conflict will never come to pass. Nevertheless, prudence dictates that we be prepared for this contingency. A capability to fight all other potential adversaries will be meaningless if we cannot prevail at sea against the Soviets.

The "Harms Way" Strategy

Navy Secretary Lehman has argued that in the event of war with the Soviet Union the U.S. Navy must be prepared to take the offensive against the Soviet Northern and Pacific Fleets. These are the largest of the Soviet's four Fleets. They include about 80 percent of the Soviet Navy's attack submarines, 58 percent of its major surface warships and all of its modern nuclear missile submarines. In testimony before Congress last March, Secretary

Lehman outlined how an offensive against the Soviet Northern Fleet would be prosecuted:

> "...seizing the initiative is essential. We have to move up north of the GIUK (Greenland-Iceland-United Kingdom) gap. We have to control the Norwegian Sea and force them [the Soviets] back onto the defensive further north, under the ice, to use their attack subs to protect their nuclear missile submarines, to use their attack subs to protect the Kola and the Murmansk coasts...."

Essentially, this strategy calls upon the U.S. Navy, in Secretary Lehman's words, to "sail in harms way" and "go into the highest threat areas to defeat the Soviet [naval] threat." It closely resembles the strategy used by the U.S. Navy in the Second World War to defeat the Imperial Japanese Fleet as a prelude to the invasion of the home islands. It rests on the assumption that destroying the main strength of the Soviet Navy would be both feasible and necessary in wartime.

Force Requirements

According to Secretary Lehman and other proponents of what might be called the "harms way" strategy, offensive operations against the Soviet Navy would be organized around nuclear-powered attack submarines (SSNs) and carrier battle groups; initially SSNs would be sent in to "nullify the Soviet submarine force," carrier battle groups would follow to attack Soviet surface warships and supporting naval and air bases. Because these forces must be designed to operate in "the highest threat areas" they are, not surprisingly, very expensive:

- The average cost of our latest attack submarine, the *Los Angeles*-class SSN, is about $530 million (FY 1986 dollars). Its follow on, the SSN-21, which is to go into production at the end of the decade, will be much more costly. The Congressional Budget Office (CBO) has estimated a price of $1.5 billion (also in FY 1986 dollars) for each SSN-21.
- The *Nimitz*-class carriers currently under construction cost about $3.35 billion each. Putting an air wing aboard adds another $4 billion-plus (all figures in FY 1986 dollars).

- The cruisers and destroyers in the Battle Group are also very expensive. Each new _Ticonderoga_-class guided missile cruiser costs about $1.14 billion, while the new _Burke_-class guided missile destroyers will cost an average of $910 million apiece (all figures in FY 1986 dollars).

In wartime an average of six cruisers and destroyers and one SSN would be used to escort each carrier. In addition, one Underway Replenishment Group (URG) made up of four or five logistics ships would be required for every two deployed carriers. Each URG would in turn be escorted by an average of one destroyer and three frigates ($215 million each). Altogether, a single carrier battle group would cost about $17 billion to buy today (all figures in FY 1986 dollars).

It is obviously useful to build some offensive capability for use elsewhere in the world as well as to force the Soviets to devote their own resources to defense. The question is how much money we want to spend on forces designed and dedicated to a World War II strategy rather than on forces for other purposes. Seventeen billion dollar battle groups and $1.5 billion submarines require defense funds which could be spent wisely in other ways. Whether a "harms way" strategy is worth the expense depends first on how we assess the capabilities of the Soviet fleet and second on what we might reasonably hope to accomplish by prosecuting an offensive strategy against the Soviet homeland in the event of war.

Capabilities and limitations of the Soviet Navy

1) The Soviet Navy clearly lacks the forces it would require to wrest control of the high seas from the West.

- To reach the open ocean most Soviet warships must pass through straits controlled by U.S. allies. In wartime these chokepoints could be easily mined and patrolled by U.S. and allied forces, effectively bottling up the bulk of three of the four Soviet fleets.

- The Soviet Navy has a very limited capability to provide fuel, ammunition and other supplies to ships deployed far from home. The Soviet Navy includes 85 replenishment ships which displace a total of only about 570,000 tons. The U.S. Navy has 53 much more capable replenishment ships with displacements totalling some 1,413,000 tons.

- The Soviet Navy has only a limited overseas basing network. It has access to a variety of facilities in Eastern Europe along the Balitic and Black Sea coasts, but it operates only a handful of facilities beyond these essentially land-locked waters -- in Cuba, Angola, South Yemen, Syria, Ethiopia and Vietnam. By comparision, the U.S. Navy operates 57 installations in 17 countries and dependencies around the World.

- The Soviet Navy lags far behind the West in sea-based air power. It has two Moskva-class cruisers and three Kiev-class carriers which can launch only helicopters and vertical takeoff and landing (VTOL) aircraft. By comparison, Western navies include 16 large-deck aircraft carriers (which are capable of launching high performance conventional takeoff and landing aircraft) and 18 helicopter and VTOL carriers.

- Because the Soviet Navy lacks any effective offensive and defensive carrier-based aviation and has access to so few overseas bases, effective air cover could be provided only to Soviet warships operating within range -- several hundred miles -- of aircraft based in the Soviet Union. Since surface ships without air cover are relatively easy prey for attacking aircraft, the Soviets would be essentially precluded from operating their surface fleet outside of this land-based air cover umbrella in wartime.

- Less than half of the Soviet Navy's surface warships are large enough to operate safely and effectively on the open ocean. The Soviets and their allies can put to sea only 145 oceangoing surface warships (ships dispacing over 2,000 tons). By comparison, U.S. and allied navies include 479 such ships.

- o Only about 25 Soviet oceangoing surface warships are equipped with anti-ship cruise missiles.

2) While they could not exercise control themselves, Soviet attack submarines may be able to challenge the West's control of some areas of the high seas.

- o Because submarines generally operate submerged they are much less vulnerable to aircraft strikes than are surface warships. Soviet attack submarines are thus better suited than Soviet surface ships for wartime operations in distant waters, where the West controls the skies.
- o Most of the Soviet Navy's 283 attack submarines are old diesel-electric boats lacking sufficient range to be used effectively in distant waters, or old nuclear-powered submarines that are so noisy they likely could not reach distant waters without being detected by Western ASW forces. Later classes of Soviet diesel-electric and nuclear-powered submarines are capable of both longer range and quieter operation.

3) The Soviet Navy would be a formidable opponent in waters adjacent to the Soviet Union.

- o While operating under an umbrella of air cover provided by aircraft based in the Soviet Union, Soviet surface warships would constitute a major barrier to operations by Western attack submarines. Most Soviet surface warships are optimized for antisubmarine warfare. Operating Western attack submarines near Soviet waters would be doubly difficult, because the Soviets could use both their coastal and oceangoing surface fleets.

- The 395 medium- and long-range bombers of Soviet Naval Aviation could attack Western surface ships operating out to perhaps 1,000 miles beyond the Soviet coast. Western surface ships which attempted to cross this perimeter would come under progressively more concerted aircraft strikes.
- Soviet attack submarines would pose a formidable barrier to both approaching Western attack submarines and surface warships. All Soviet attack submarines, even the 50-odd Whiskey-class boats dating from the early 1950s, could prove useful against Western naval forces, particularly surface warships, that attempted to approach close enough to deliver air strikes against Soviet bases.

In sum, it is clear that the Soviet Navy is much stronger close to home than it is on the open ocean. The Soviet Navy is strongest in the very seas through which Secretary Lehman argues a U.S. naval offensive should be prosecuted. It is in fact hard to see how such an offensive could succeed and the Center for Defense Information has found no evidence of active support for the strategy by serving naval officers.

Catastrophic Failure

Ironically, the best way to see the flawed nature of the harms way strategy is to consider the likely consequences of a successful offensive against the Soviet Northern or Pacific Fleets. If, for example, our SSNs were able to sink a substantial portion of their Soviet counterparts in the Norwegian and Barents Seas, making way for our carrier battle groups to attack Soviet surface ships and bases located on the Kola peninsula, how should we expect the Soviets to react? As we begin the attrition of their nuclear missile submarines and direct attacks on their land bases it seems foolhardy to assume that they would not react by using nuclear weapons against the threatening naval force rather than by accepting defeat.

We and our NATO allies specifically proclaim the right to use nuclear weapons in the event our conventional defenses fail in the face of a Soviet ground offensive in Europe. Why should we expect the Soviets to behave any differently if they come out on the losing end of a conventional offensive in the Barents Sea? We shouldn't. In fact the Soviets might very well be more inclined to use nuclear weapons in the Barents Sea than we and our allies would be to use them in Central Europe. The reasons for this are simple.

First, the Soviets might expect to win a nuclear war confined to the sea. This is essentially because the centerpiece of the U.S. Navy, the aircraft carrier, is highly vulnerable to nuclear attack, while the backbone of the Soviet Navy, the submarine, is not. Numerous studies and naval wargames confirm that surface warships make relatively easy targets for nuclear strikes. That is of course why both we and the Soviets have elected to put the sea-based leg of our strategic nuclear forces on submarines rather than surface ships.

Secondly, the Soviets might expect that a war at sea would remain confined to the sea. There would be relatively little collateral damage in such a conflict and the U.S. would risk everything by spreading the conflict to shore. This is in stark contrast to Central Europe, where collateral damage would be great and where the chances of avoiding escalation to all-out nuclear war would be nil.

In sum, we should not even consider adoption of the harms way strategy unless we are willing to accept:

1) an increased likelihood that any war with the Soviet Union will involve the use of nuclear weapons;

2) either the loss of our surface fleet or the responsibility for spreading a nuclear war at sea to shore, an act that would almost surely trigger all-out nuclear war.

Common sense tells us that we should not accept either of these propositions or the strategy that gives rise to them unless a less risky and affordable strategy cannot be found. Fortunately, as the following discussion will illustrate such a strategy can not only be found, it has long been a part of NATO war plans.

The Goals of U.S. Naval Strategy

U.S. naval strategy in the event of war with the Soviet Union should, in order of importance, seek to achieve the following goals:

1) Keeping open the Sea Lines of Communication (SLOCs) connecting the U.S. and its European and Pacific allies to each other and to vital regions of the Third World. A serious disruption of the SLOCs would have a particularly debilitating effect on NATO's ability to defend against a conventional Soviet ground offensive in Europe. The European members of NATO are largely dependent on sea-borne trade for their economic health. Moreover, in wartime, some 90 percent of U.S. reinforcements and supplies bound for Europe would have to be delivered by ship.

2) Supporting allied ground operations around the NATO periphery, particularly in southern Norway and along the Mediterranean littoral.

3) Cutting the Soviet Union's own SLOCs. While the Soviet Union is much less dependent on transoceanic trade than the U.S. and our allies, in a long war allied interdiction of Soviet SLOCs would help to attrite their industrial base.

These goals can all be realized through the adoption of a strategy that is both less costly and less risky than the harms way strategy. Such a strategy would focus on bottling-up the Soviet Navy and convoying merchant ships to protect them from residual Soviet attack submarines that managed to reach the SLOCs.

Bottling-Up the Soviet Navy

The best way to bottle up the Soviet Navy would be through the use of a combination of naval mines, land-based ASW patrol planes and attack submarines. In wartime anti-submarine barriers should be set up across various geographic "chokepoints," like the Greenland-Iceland-United Kingdom Gap, through which Soviet attack submarines must pass to reach the SLOCs.

Naval mines could be layed across the various chokepoints by a wide variety of surface ships, submarines and aircraft, as well as special minelaying ships. Naval mines are relatively inexpensive weapons. The most advanced U.S. naval mine, the Captor anti-submarine mine, which can launch its homing torpedo against submarines that pass within 3,300 feet, costs about $555,000 apiece (FY 1986 dollars).

No one can accuse the Navy of being "penny wise and pound foolish" in its attitude toward Captor procurement -- its refusal to request continued funding is being foolish with pennies as well as with pounds. By its own account, the Navy has stocked only half the Captor mines it needs. It will take another seven years to fill the stockpile if we produce 300 mines a year. Congress is funding only 150, which is better than the Navy's nothing but still inadequate. Other ASW munitions have also received low priority. In its February 1984 projections of the FY 1986 budget, the Navy planned to spend $1,020 million on torpedoes and related equipment. This past February, it requested only $798 million.

In addition to mining, long-range land-based ASW planes like our own P-3 Orion can conduct broad-area searches across the chokepoints. They are the most cost-effective platforms for this task. While it is important to improve the capabilities of the P-3C fleet, there is no good reason for costs to increase as rapidly as projected for upgraded aircraft. This committee took an important step this year in pressing the Navy to keep the P-3C affordable, and I hope you will carry on. We need P-3Cs badly and a sound Navy budget should provide funds for a more efficient production rate than the projected nine a year.

Attack submarines are well suited to provide a defense against Soviet attack submarines attempting to reach the SLOCs. ASW attack submarines designed for barrier duty need not be as capable and thus as expensive as those designed to penetrate Soviet waters or, like the SSN-21, to operate under the icepacks. Our allies use diesel-electric boats that cost one-third to one-fifth as much as our SSNs. We certainly do not require the $1.5 billion SSN-21 for efficient ASW barrier operations.

The best forces for convoy escort duty are frigates. These ships are generally smaller, slower and equipped with less advanced weapons and sensors than cruisers and destroyers. But they are as fast as most merchant ships and capable enough to effectively combat the residual Soviet submarine and aircraft forces likely to reach the SLOCs. Moreover, frigates are much less expensive than cruisers or destroyers. The last frigates produced in the U.S -- of the Perry-class -- cost an average of only $215 million a copy (FY 1986 dollars).

The frigates, of course, have to be adequately outfitted with effective ASW helicopters. It reflects badly disordered priorities for the Navy to put billions into new generations of superships while acting like Jack Benny when it comes to helicopter production. This committee has done well to insist that the Navy explore moderately priced new helicopter/ship systems in order to expand ASW forces in the future. Recent reports that the Navy has reduced projected ASW helicopter budgets in its revised five-year plans are very disturbing. We need enough affordable ASW helicopters not only to equip all capable active and reserve Navy ships, but also to go ahead with production of Arapaho containers. The Arapaho program would allow merchant ships to operate ASW forces for wartime convoy defense. It is one of the best bargains available for protection of our sealift forces.

Beyond protecting convoys at sea, we need to upgrade our ability to get our own ships past mine barriers laid by the Soviets. It makes no sense to disperse our Navy ships to many different home bases when we don't have sufficient mine-countermeasure ships to clear more than one port at a time. But even if we go ahead with all the new MCM ships in the program, we will still have very little capability. As the Deputy Chief of Naval Operations for Surface Warfare told this committee last year,

> "For many years the mine warfare forces of the U.S. Navy fell prey to higher priority programs. Not until FY 1982 did we request the first new MCM. Since that time, four more MCM-1 class ships have been appropriated as well as the first of a new class of Coastal Minesweeper Hunter, the MSH-1. As you know, we have only three active mine sweepers (MSO) and eighteen in the Naval Reserve Force. The capability of these MSOs to ensure port breakout is tenucus at best and we must move rapidly to build the acceptable risk force of fourteen MCM and seventeen MSH. Despite the fact that these are the most sophisticated and capable mine countermeasures ships ever built, this total of 31 ships is a bare minimum and will dictate sequential clearance of U.S. ports and approaches as well as a heavy reliance on our allies to maintain clearance in their own waters."

For my part, I consider the planned force inadequate. If we ever got production up to speed we could probably build 20 or more coastal mine-sweepers for the price of one DDG-51, and the money would be a lot better spent.

Money

To be sure, the Navy acknowledges rhetorically that we must continue to plan for defensive as well as offensive operations against the Soviets in wartime. Underfunding of ASW helicopters and mine-sweepers, however, and no funding request at all for Captor mines or for Arapaho, show the Navy's real priorities. By front end loading the shipbuilding program with new carriers, battleships, and Aegis-equipped escorts, the Navy has committed the lions share of its future budgets to the "harms way" strategy to a degree that Americans should find frightening. The extent to which we have put our budgetary eggs in the offensive basket can be seen in Navy procurement plans over the next five to fifteen years.

Between 1986 and the year 2000 the U.S. Navy will have to spend some $232 billion (FY 1986 dollars) just on new ships if it is to attain and then maintain the Navy's present force goals. Some 41 percent of that will go for Carrier Battle Groups, including the carriers, their cruiser and destroyer escorts and the underway replenishment ships used to keep them supplied. Another 28 percent will go for SSNs, some of which may be used in barriers, but all of which are designed to penetrate nuclear missile submarine sanctuaries and escort carrier battle groups into Soviet waters.

Only eight percent of the Navy's shipbuilding budget will go for frigates. Only about one half of one percent of that budget will go for mine warfare ships. The rest of the budget will be split among Trident ballistic missile submarines (10 percent), Amphibious warfare ships (8 percent) and other ships (3 percent). Clearly, "harms way" requirements drive the Navy's procurement budget.

The Navy aircraft procurement plan is even more revealing. Over the next five years, the U.S. Navy will spend some $47 billion (FY 1986 dollars) on new aircraft. The bulk of that money will be used to buy carrier-based aircraft, particularly F-14 fighters and F-18 fighter/attack aircraft. Only about four percent will be used to buy frigate-based ASW helicopters and some five percent to buy P-3C ASW patrol planes.

All of these data are according to plans prepared at the beginning of 1985, which, of course, will have to change to reflect new fiscal realities. According to the Congressional Budget Office, annual Navy spending would have to grow by at least five percent per year above inflation through 1994 in order to maintain the projected fleet. More likely, generational cost growth in new weapons like the SSN-21 and the Advanced Technology Aircraft will drive program costs even higher. There is no chance that budgets will grow so fast.

Already there are signs that the Navy is giving priority status to its offensive forces at the expense of everything else. As I noted earlier, it is reported that the Navy will cut back ASW helicopter procurement in order to accommodate lower budgets in the next three to five years. There is also reason to worry that next year's budget will shortchange personnel requirements.

Pay raises in 1980 and 1981 got military compensation up close to where it should have been. Although cost of living increases since then have about kept up with inflation, total compensation has again fallen behind comparable civilian levels. Vice Admiral William P. Lawrence, Deputy CNO for Manpower, recently said that comparability in some job classifications has eroded by almost 35 percent since 1981. In the FY 1983 budget, however, the White House proposed freezing pay, and it wanted a delay again this year. Even though Congress did not accept such limits on compensation, retention problems are showing up in key skill areas, and pilots are leaving the Navy in droves because of opportunities in the private sector. Demographics at the end of the decade will make it extremely difficult, even with regular pay raises, to maintain recruitment of high quality young people. If it comes to a choice between a few F-18s or a DDG-51 and an adequate pay raise, I hope this committee will put people first -- I am not sure the Administration will.

Matching Programs to Missions

It seems the most important thing this committee can do is take a hard look far ahead in order to begin thinking seriously about the Navy's priorities through the end of the century. Perhaps the greatest danger the Navy faces is the problem it has in honestly assessing the long-term budgetary implications of strategic decisions being made today. The hard truth is that the "harms way" strategy the Navy has pursued so aggressively in the budget wars of the past few years is leaving us open to fiscal disaster in the 1990s -- to the detriment of the military strength we all seek.

Senator Nunn recently pointed out that just five major new weapons programs, whose development Congress has supported in Fiscal Year 1986 at a price of $1.3 billion, will add to the budget between $150 and $200 billion over the next 10 years; they are the Army's LHX light helicopter, the Air Force's Advanced Tactical Fighter, the C-17 airlifter, the Navy's JVX tilt-rotor aircraft, and the Navy's Advanced Tactical Aircraft. He neglected to mention the Strategic Defense Initiative which, under Administration plans, could cost $60 to $70 billion through 1994.

Typically, the budget for any major new military program grows in a funding wedge; costs are relatively small in the beginning while weapons are in the early stage of development, but climb very rapidly once production begins. Each program is developed and justified individually. Taken together, however, they represent a large mortgage on our future. As they enter the procurement phase, they will compete with other weapons programs which are already continuing at relatively inefficient production rates, and they will drain away funds for readiness and sustainability.

Over the past five years, the Navy has heavily mortgaged its future to the "harms way" strategy. In my view, the highest funding priority ought to go to anti-submarine warfare forces for protection of sea lanes, increased mine warfare capabilities, sealift, and personnel. While these are relatively inexpensive, we cannot finance them simply out of the money left over from construction of new, primarily offensive forces. The new DDG-51 destroyer illustrates some of the fiscal trade-offs we should not be making.

To be sure, the DDG-51 was designed to be less expensive than it might have been, and it costs about the same as the earlier DDG-963 in constant dollars. Compared to the DDG-963, the DDG-51 trades away anti-submarine warfare capability in order to emphasize air defense using the Aegis radar and fire control system. The Navy also saved money on the DDG-51 by not building in as much speed and endurance. But it is stretching the term to call the DDG-51 "affordable." Given the addition of Surface Action Groups and new carrier battle groups to the force structure, we do not have enough money available in prospective budgets to afford enough Aegis-equipped destroyer and cruiser escorts to meet stated requirements. These ships, by any reasonable definition, are not affordable.

Our major new escort ships need to be this expensive only because they are intended primarily to help protect battle groups sailing into the face of very intense air attack. To be sure, even in protecting sea lanes, air defense is essential, especially in the face of Soviet cruise missiles launched from submarines. But with effective anti-submarine barriers, we don't need large numbers of Aegis-equipped cruisers or destroyers to protect our sealift. We can perform the most vital missions with much less expensive ships that may be less capable by absolute measures, but which are perfectly capable of performing the necessary defense missions.

Where to Make Economies

The money we need to spend on anti-submarine warfare, mine warfare, sealift and personnel has to come from someplace. The first place is from over-capable weapons like the DDG-51 -- we may need some, but perhaps not even as many as the 29 in the most recent Navy plans. We can limit the requirements for these kinds of expensive escorts most substantially by cutting the Navy structure -- we don't need the battleships and additional carrier battle groups as much as we need more ASW helicopters on frigates.

Second, it makes no sense at all to carry through Secretary Lehman's plans for diversified home porting of his 600 ships. During the Vietnam war we operated a 1,000 ship Navy with essentially the same number of bases we nave now. Since then, we have added major new submarine bases on both coasts. According to the General Accounting Office, construction of the new home ports announced by Secretary Lehman will cost a billion dollars over the next few years, with annual operating costs of some $30 million for each new base. For that money we can build and operate enough minesweepers to ensure that our ships can sail out of existing ports in the event of a conflict. New ports also require additional personnel, straining our most limited resource further. Strategically, we gain nothing -- another 10 ports will require Soviet nuclear targeters to reallocate 20 or so warheads, which hardly strains the Soviet arsenal.

Third, we need to control the cost of the weapons we do build much more effectively. As I noted above, the committee has done well to insist on more moderately priced LAMPS systems and P-3C upgrades. But if Congress is going to encourage genuine cost control, action is needed much earlier in the weapons development cycle. While the Navy, along with the other services, has avowed its newfound commitment to control costs and to emphasize reliability and maintainability in new weapons, its record on such admirable resolutions is not very good. I remember when we planned to build the F-18 as a low-cost, simple, multi-purpose aircraft to be procured in large numbers -- we planned over 1800 at about $8 million a plane. Now we plan to buy 1377 at a cost of $32 million apiece. The design decisions which ultimately drove up the cost of the F-18 were made very early on. As the Navy begins to think about a new Advanced Technology Aircraft, now is the time for the Congress to demand realistic, affordable design decisions.

In addition, the Congress needs to keep a much closer eye on Navy contracting procedures and on contractor performance. To its credit, the House this year passed some important legislation to prevent abuses of the public trust by defense contractors. And to its credit, the Navy seems to be somewhat ahead of the other services in adopting certain money-saving design and contracting practices. For all my criticism of the DDG-51, the Navy has done some of the right kinds of things in getting the ship into construction -- it used existing technologies as much as possible, it allowed enough time between construction of the first ship and follow-on contracts to iron out production problems, and it is aggressively using competition to drive down production costs.

All of that being said, there are still many deep-rooted problems in the whole defense acquisition process, and we need to make some permanent changes in the way we do business if we hope to avoid future scandals. Even with new penalties against companies that submit false cost claims, it does not seem that the responsible individuals will ever pay a real price for the kinds of abuses that General Dynamics engaged in; for all its tough language, the Navy still has a protective attitude toward the large contractors and toward their major corporate officials.

Corporations also need to be forced to accept somewhat more financial risk for overly ambitious development projects. Many production contracts are now awarded on a fixed price basis, and that should become the norm, along with continued multiple sourcing to ensure effective competition. But cost plus contracts still prevail for weapons development as well as for ship overhauls. Even recognizing the need for such contracting procedures, it should be possible to hold companies to higher standards of performance. This is possible only if incentives in contracts are written tightly enough to ensure that the companies will lose something if they overstate what they can accomplish and understate their costs. Congress must curb the natural tendency of the services to demand performance regardless of cost, a demand the contractors readily promise to meet in the interest of increased profits. Realistic, achieveable and affordable performance goals must come first, followed by close Congressional supervision of contracting procedures and program execution. Most importantly, the committee should insist that the Navy adhere strictly to the new requirements for multiple sourcing of major weapons development and production contracts. We can drive prices down, enforce new commitments for reliability in weapons design, and ensure contractor accountability only with constant, tough-minded political oversight.

Mr. BENNETT. The first question I have deals with the fourth point on your paper. You say, any war fought between the United States and the Soviet Navy is likely to be a nuclear war. If that be so, do you expect it will be an all-out nuclear war, both land and sea?

Admiral CARROLL. The first assumption, I gave you the reason for it, neither side will accept defeat without resort to nuclear weapons. Eighty-five percent of U.S. ships are capable of carrying nuclear weapons, using them, I assume one side or the other will initiate their use.

Mr. BENNETT. Do you think a nuclear war could be restricted to the Navy?

Admiral CARROLL. No, I do not, sir.

Mr. BENNETT. In that event, wouldn't the war be pretty promptly over? It wouldn't last for a long period of time, do you think?

Admiral CARROLL. No, sir.

Mr. BENNETT. Why would you want to build any other ships at all then?

Admiral CARROLL. If we do not resort to nuclear war and attack the Soviet Union directly, if we do not threaten their survival and integrity as a nation, they then have this threshold that they do not want to cross, which is the assured destruction of their nation, by using nuclear weapons.

If we go after them in this aggressive forward strike strategy, they may have no choice except to surrender or fight with nuclear weapons.

WEST RETAINS ADVANTAGE OF OCEANGOING WARSHIPS

Mr. BENNETT. Your second point, you said the West retains a decisive advantage of oceangoing warships. That may be so, but reading other sources, I have the figure of something in excess of a thousand ships that the Russians have.

Admiral CARROLL. They have probably over 2,000.

Mr. BENNETT. You said here that we have an advantage over them in numbers?

Admiral CARROLL. Yes. We have defined oceangoing ships as 2,000 tons or greater, warships, and in that category, the Soviet Union has 150 odd and we have, with our allies, over 400.

Mr. BENNETT. How many do they have with their allies?

Admiral CARROLL. Very few more.

Mr. BENNETT. You have to do the same calculation?

Admiral CARROLL. There is very little added on the Warsaw Pact side.

Mr. BENNETT. Does that figure include submarines?

Admiral CARROLL. No.

Mr. BENNETT. They have more submarines than that figure. Did you include ours?

Admiral CARROLL. Yes.

Mr. BENNETT. You are including our submarines and not theirs. That is not really fair, is it? It is not fair to include our allies and not their allies.

I am not trying to confuse you all. You said that the Russians clearly have a disadvantage in numbers of combatants——

Admiral CARROLL. Sorry, sir. We should have said surface warships because we account for the submarines separately and in the same way you have asked.

Mr. BENNETT. Your statement then is not accurate.

I am looking at the statement you made. I am not trying to trip you, but you said ocean-going warships.

I am just trying to get the right ideas about having adequate strength, and I feel that a war at sea would quickly be a nuclear war and you also conclude that that would be accompanied by a land war that is nuclear, and therefore, the war would be over fairly shortly?

Admiral CARROLL. I conclude that a war at sea will become a nuclear war if we carry it to the Soviet nation in an attempt to attrite and defeat them from sea bases, that they will resort to nuclear weapons rather than accept that defeat.

Mr. BENNETT. I appreciate very much your being here.

Mr. Spence.

Mr. SPENCE. Mr. Chairman, just one point, we could be faced with the same information, and still our Maker has endowed us with minds that allow us to arrive at conclusions 180 degrees apart.

That is since the beginning of time, but you seem to think here, that if, for example, our SSN's were able to sink a substantial portion of their Soviet counterparts in the Norwegian and Bering Seas, why wouldn't they react by using nuclear weapons by using a naval threat, accepting defeat?

We can't go in and beat them because they might get mad. They will start a nuclear war. Is that right? How are we supposed to fight them then?

Admiral CARROLL. I believe you have stated it correctly. If the United States and the Soviet Union engage each other where their vital interests are concerned and one side or the other is confronted with defeat under conditions which would end their national existence, they will resort to nuclear war. I don't believe you can fight a war against a major nuclear power to a conclusion; the wonderful, old, unconditional surrender conclusion of the past wars as long as they retain the ability to respond with nuclear weapons.

Mr. SPENCE. Then we just can't fight. No matter what you do to us, we aren't going to fight you because we are afraid we will make you mad.

Admiral CARROLL. You can fight so long as you don't threaten the national existence of the other side. You better have conventional capabilites or you are reduced to no response except nuclear attack.

Mr. SPENCE. You don't have the capability because you might hurt them too much and they might get mad?

Admiral CARROLL. Those are your terms. My terms are if national existence is threatened, they would resort to nuclear weapons.

Mr. SPENCE. How far can you go?

Admiral CARROLL. No one knows how you come to an understanding at some point about what is acceptable and where do you draw the line.

Mr. SPENCE. Get together with them and draw up a game plan here?

Admiral CARROLL. We can't agree at Geneva today even on how to count weapons.

Mr. SPENCE. The only alternative is we are afraid to extend ourselves anywhere because we are afraid to make them mad?

Admiral CARROLL. We have to be prepared to defend ourselves, but cannot gain anything by being prepared to destroy the Soviet Union because they will resort to nuclear weapons.

Mr. SPENCE. If we had resorted to that, we wouldn't be here today. Thank God there are other kinds of people.

Mr. BENNETT. Mr. Bateman.

Mr. BATEMAN. It is an interesting thesis that Mr. Spence sort of puts his finger on the critical element to either accepting or rejecting the strategic notion. I don't know as I take it quite as Mr. Spence did, but there is certainly an element there of "You better not fight the naval war too successfully or otherwise you will create a problem for yourself and that is a bit difficult to accept." But taking that, the Soviet Union is essentially a continental landmass. Its vital interests are not as significantly wrapped up in a blue water navy as are the vital interests of the United States of America.

Do you put that into this equation as to whether or not it is therefore of such paramount importance to the vital indispensable national security interest of the United States that we have a capability to defeat the Soviet fleet?

Admiral CARROLL. I think I made it clear we cannot go where the Soviet fleet will be and defeat them because if we succeed, then we get into this terrible situation about where they won't accept that defeat without using their nuclear weapons.

Mr. BATEMAN. That overlooks my point. The defeat of a Soviet fleet, assuming we have the capability you would regard as being of such tremendous importance to their national survival that they would have recourse to nuclear weapons?

Admiral CARROLL. By definition, the Secretary of the Navy has said that we will be attacking the Soviet Union itself. It isn't the defeat of the Soviet navy that would provoke the nuclear war per se. It is the fact that they would then be open to attack as Japan was open to attack and attrition from sea bases that would impel them to use nuclear weapons.

I believe we have to be prepared to defeat the Soviet Union in the open oceans and drive off their submarines in order to control the sea and maintain the linkage with our allies who are absolutely essential to our defense strategy.

Mr. BATEMAN. To what extent do you see deterrence to global conflict and naval war on the high seas throughout the world as being a legitimate concern of America's naval strategy?

Admiral CARROLL. I am sorry. I missed that.

Mr. BATEMAN. To what extent does deterrence enter into our naval strategy; that is, the concept of a Navy sufficiently strong to deter a global conflict and a broad-based conflict on all of the high seas?

NAVAL STRATEGY AS A DETERRENT

Admiral **Carroll**. That is an excellent question because I think it highlights the point that Mr. Spence was getting after. We must have the conventional capability to deny the Soviet Union the opportunity to exploit the seas to our disadvantage and be able to do that in combat, if necessary, under foreseeable conditions. At the same time, we can use the seas very efficiently for deterrence of nuclear war because of the assured survivability of our SSBN force. That is the survivability of the U.S. force at sea.

It may be larger than we need and certainly the Soviets' is larger than they need, but that awaits arms control to come down.

Mr. **Bateman**. Assuming an American naval capability that will make tenable a forward or "harm's way" strategy, isn't that a magnificent deterrent to having to use it?

Admiral **Carroll**. It is a subtle point. It is rather like being able to win a nuclear war. Mr. Weinberger told our armed forces in his defense planning guidance to be prepared to prevail in a prolonged nuclear war. I can't define that process, I don't know how you do it and at the same time I don't know how you have such a strong Navy that you could go into the Soviet home waters and defeat their fleet and attrite their land-based defenses without provoking the nuclear war that the use of our nuclear weapons will produce.

You can't prevent a nuclear war by starting one. Similarly, if we go into the Soviet home waters in the Atlantic and Pacific, I have identified the process that I think will take place.

We will either suffer unacceptable attrition with nothing to replace our losses or we will succeed and then the Soviets will respond with nuclear weapons.

Mr. **Bateman**. I think I understand your point. It is one we will continue to grapple with.

Thank you, Admiral.

Mr. **Bennett**. General Blaz.

Mr. **Blaz**. No questions. Thank you, Mr. Chairman.

Thank you very much, Admiral.

Mr. **Bennett**. Well, we want to thank everybody for coming here today. I think this has been one of the finest hearings we have had. There hasn't been any chaff here. It has all been helpful and stimulating and I think it is being helpful to our country, so I am grateful to everybody for coming.

We will meet at 10 o'clock on Tuesday.

[Whereupon, at 1 p.m., the subcommittee adjourned, to reconvene at 10 a.m., Tuesday, September 10, 1985.]

NEED AND PLANS FOR A 600-SHIP NAVY

House of Representatives,
Committee on Armed Services,
Seapower and Strategic and
Critical Materials Subcommittee,
Washington, DC, Tuesday, September 10, 1985.

The subcommittee met, pursuant to notice, at 10:02 a.m., in room 2118, Rayburn House Office Building, Hon. Charles E. Bennett (chairman of the subcommittee) presiding.

STATMENT OF HON. CHARLES E. BENNETT, A REPRESENTATIVE FROM FLORIDA, CHAIRMAN, SEAPOWER AND STRATEGIC AND CRITICAL MATERIALS SUBCOMMITTEE

Mr. **Bennett**. The subcommittee will come to order. This morning the Seapower Subcommittee holds its last scheduled session in its current examination of the need and plans for a 600-ship Navy. The committee has now received substantial testimony in this series of hearings, including a fine opening hearing with Secretary Lehman, Admiral Watkins, and General Kelley; detailed presentations on strategies and operational plans for the fleet as a whole and the submarine force in particular; and the views of a number of Government and private witnesses who have questioned various aspects of the Navy's plans and have raised questions about various things that they felt ought to be questioned.

The committee has asked today's witness, Secretary of the Navy Lehman, to testify again so that we can hear specifically the Navy's response to the criticism of its overall strategy, operational plans, and weapons procurement program. Additionally, I have asked Secretary Lehman to discuss specific issues that have wide ranging interest to the sustainability of the Navy's 600-ship effort over time in terms of dollars and people, since that has been raised very vigorously by critics. Not necessarily critics who do not want to have a 600-ship Navy, but who question whether it can be done, and the Navy's plans for the strategic homeporting of ships around the country.

I also might add that I would like the Secretary in this hearing, if he could, to say something about the Commission which he now heads and which has been brought about by recent legislation, the Merchant Marine and Defense Commission.

Before going further, I would like to say that it has been the committee's intent in these hearings to get the best information possible on the numbers and kinds of ships that this country should have. To date, we have been very successful in that endeavor, and today's testimony should put in perspective the things that have been previously testified to, and perhaps point to a direction or directions in which we should be going in the future.

Mr. Secretary, we are delighted to have you with us. We appreciate your coming as busy as we know you are.

STATEMENT OF HON. JOHN F. LEHMAN, JR., SECRETARY OF THE NAVY

Secretary **Lehman**. Well, thank you, Mr. Chairman. It is a pleasure to be back. I thought that rather than submitting a prepared statement I would respond directly to the issues that have been raised during these hearings, and ones which you personally have raised. Each is interesting, and I think helpful, to explore to understand the naval recovery that has been underway these last 4 years.

SIZE OF NAVY

I think that it would be useful to start by taking the committee through the analysis from which the size of the Navy is derived—how did we get to 600 ships? After that, I would like to go through what I see as the five principal issues or themes that run through the critiques of President Reagan's maritime programs that have emerged in your hearings and in the overall debates of recent years.

The first of these I think is: does a strong Navy and Marine Corps affect our ability to deter Soviet aggression across the spectrum of violence from terrorism to all-out nuclear war? There are those who have suggested that no matter how strong the Navy is, it cannot affect the outcome of a war on land.

The second theme is: do we have a strategy for how we plan our forces and how we train them. The third is: is it the correct strategy—is it the right strategy given the realities of the United States' circumstances in the world? Fourth: is it the right Navy that we are building for that strategy? And fifth, and what is most topical this year, is: can we afford to maintain a 600-ship Navy for the long-term, in terms of dollars and in terms of continuing to attract and retain sufficient high quality people to man the fleet?

To understand how we have arrived at the size of our current Navy plan, it is necessary to understand that it is not the result of any arcane theory or complex formula. The reason that it has been so notably stable and unchanging over the last 5 years, is that the size of our Navy is derived from three basic elements. Indeed, its principal elements have remained stable throughout naval thinking in the post-war period.

The first is the geography of the world, covered as it is, 73 percent by water. Second, the vital interests of the United States, the elements upon which the security of this Nation rests. Purely in terms of the military balance of power, this is best found in the web of 40-odd treaty relationships binding us in coalitions all around the globe for mutual defense. This is the foundation of our national security structure.

It includes also the energy dependencies and commercial dependencies that support our entire economy both in peacetime and in war. And third, that element that is most often overlooked in the trendy armchair debates and abstract analytical studies done by congressional and executive branch analyses staffs—the threat.

PURPOSE OF NAVY

The purpose of naval forces is to prevent the seas from becoming a medium of attack upon the United States, and to ensure that the United States has the unimpeded use of the seas where and when we must have use of them in war and in peace. These are the two principal reasons for maintaining naval power.

The reality of the threat to our ability to carry out those responsibilities is the principal change in the world scene, from a military standpoint, since the Second World War; a change second only to the introduction of nuclear weapons.

I strongly recommend to the subcommittee a wide dissemination of our recently updated publication called, "Understanding Soviet Naval Developments," a publication with which you, Mr. Chairman, are very familiar. But very few members seem to have taken the time to look at the cold factual data of what the Soviet Navy has been doing.

We live with it every day. That is greatly beneficial to us. We have the advantage of being among the forces that pose the threat to our vital interests, virtually within yards of them, every day. This morning, there are double-digit numbers of Soviet nuclear submarines off our coasts, operating in waters that were heretofore considered home waters of the United States. That is now a permanent feature of the global military balance.

We have *Victor*-class attack submarines commonly underneath our sport fishermen outside some of our principal naval ports. Now they are on permanent station, very often in the most contentious and vulnerable choke points in this hemisphere and in the principal sealanes and choke points of western commerce throughout the world.

This is a new reality. Indeed, the pattern of deployments is something that has crystalized only in the last several years. Many commentators and armchair strategists are innocent of knowledge of the realities of this threat. But we have to look at it as a primary factor in evaluating the size of the fleet that we must have.

Geography, our vital interests, our alliance webs, and the threat to them set the size of the fleet. It is not set by the individual strategies of theater commanders or of people in Washington whether civilian or military. While strategy plays a major part in how we train and in how we design our ships and what we design into them, it does not by itself drive the size of the fleet.

As I have indicated, the size of the fleet is set by the geography, our vital interests, and the threat to them. Let me take you from those three elements to how we reached the number 600. We deploy in peacetime very much the way that we would deploy in wartime. For purposes of peacetime deterrence, crisis management, and diplomatic presence, we deploy to areas that we will have to fight in if war breaks out. That process also provides us added advantage in terms of the realism of our training and planning.

And so, while the size of our fleet is set by how we must fight in wartime, in peacetime, we deploy almost exactly the same way except at a much lower operational tempo. We have a rough 3-to-1 ratio of operational tempo in wartime compared to peacetime. In wartime, we expect to fight almost solely with large battle forces in the principal theaters. We would rarely have a single carrier battle group operating alone in a full-scale general war at sea. But in peacetime, we can train and maintain presence with single carrier battle groups. However, it is necessary to train as we intend to fight, in multiple carrier battle groups as we have been doing now for the last 4 years in exercises such as Fleetex and Readex and large NATO exercises such as Ocean Safari, which is going on right now in the Norwegian Sea.

TREATY COMMITMENTS

I would now like to take you through geographic areas and treaty commitments theater by theater, to explain how the numbers are built up. First, it is important to understand that we operate with notional force structures like a battleship surface action group [SAG] and a carrier battle group. That is how we plan our forces, and that is how we normally deploy them. But the great value of naval forces is the flexibility inherent in them. You construct a task force for the task, for a given geographic area and for the threat that is there. You may have more carriers and fewer cruisers. You may want a battleship in one area but not want a battleship in another. So in the actual fighting of a war, there is considerably more mixing and flexibility than the notional peacetime planning factors. But the planning factors are a very valid way of sizing and training the force.

ATLANTIC AREA

Let us take each geographic area in turn. First, the Atlantic. The Atlantic theater encompasses the North Atlantic, the Norwegian Sea, the northern flank of NATO, the South Atlantic, the Caribbean, and the Gulf of Mexico. It includes the east coast of South America, and the West Coast of Africa—all vital sea lines of communications. It also involves all of the Mediterranean, including the Middle East. A large theater.

We are organized in that theater essentially into two fleets. In the Mediterranean we have the 6th Fleet which is the principal fighting force of the NATO Southern Command. It is that element that provides direct air support, air superiority, and antisubmarine warfare capability to the entire southern flank of NATO. And indeed, the southern flank of NATO is, as you well know, a principal counterweight in the balance on the central front.

MIDDLE EAST

In addition, the 6th Fleet is the principal allied force that also simultaneously provides support to our friends and allies in the Middle East. The threat in the 6th Fleet area is significant. The Soviets maintain a Black Sea Fleet and a Mediterranean squadron. We expect them to deploy a large number of submarines, both diesel and nuclear in wartime. The exact numbers are classified, but they are a very large and formidable force.

We expect to see aircraft carriers, naval aviation, and the full range of strike cruisers, destroyers, and other smaller combatants deployed against the interests of NATO.

To deal with that, in all of our planning, we have started with the solid base of allied forces present in the various areas, and our alliance navies are very good. We count on our allies to provide, worldwide, over 140 diesel submarines, which are very effective for coastal defense, for barriers, and for other limited but very useful missions.

In some cases, we count on them to provide a significant portion of the forces. For instance, in the eastern Atlantic the United Kingdom will supply 70 percent of the ready NATO forces for protection of shipping against the Soviet threat. All of these forces are included in our planning. That is why we speak of only a 600-ship Navy instead of 1,500–1,700 to match the ships that the Soviets have deployed against us, depending on what counting method is used. We have most of the world's great navies on our side in our alliances, and that is a tremendous advantage and a cost savings to the American taxpayer.

In the 6th Fleet during wartime we plan to notionally operate three carrier battle groups to meet our NATO commitments. We also plan to have one battleship SAG and two underway replenishment groups.

In peacetime, we deploy forces to the 6th Fleet on a different ratio, obviously. Today, for example, we have two carrier battle groups in the Mediterranean, the *Saratoga* and the *Nimitz* battle groups.

Notionally, throughout the years in peacetime we average one and a third carrier battle groups in the Mediterranean. In wartime, it would probably be three.

The 2d Fleet covers the rest of the theater in wartime. The 2d Fleet is also the heart of the Atlantic strike fleet for NATO. It must cover the North Atlantic, the Eastern Atlantic, Iceland, the Norwegian Sea, Norway, the entire northern flank. It also covers the Caribbean, in which we now have at all times a very large Soviet and Cuban presence, the South Atlantic where we have vital sealanes, and the West African sealanes where we currently have Soviet forces deployed on virtually a permanent basis.

For the 2d Fleet, in wartime, we notionally plan four carrier battle groups, one battleship SAG, and three underway replenishment groups. In peacetime, we generally run a force higher than this, because it is in the 2d Fleet where most of our principal training areas are to be found.

Today, we have six carrier battle groups at one time or another cycling into the 2d Fleet. We have exercises underway in virtually every season of the year with our NATO allies as we do with our South American and Central American allies, and with other nations on an ad hoc basis.

PACIFIC AREA

Moving to the Pacific. The Pacific, of course, is a vast area in which our interests have increased significantly. In 1980, trade with our Pacific partners was about equal to trade with our Atlantic partners. In just 4 short years, this ratio has shifted significantly. We have a vastly larger trade dependency with our Pacific partners, a phenomenon reflected by an increase of about 30 percent in only the last four years.

Similarly, the patterns of oil dependency have shifted tremendously in the past 5 years, virtually unnoticed by many. This is a geopolitical reality that is going to be very long-term. During the 1970's, we became increasingly dependent on Middle East oil, and that had a very real impact on our military thinking and force planning. That dependency has undergone a sea change of very long-term stability.

Today, we get eight times as much oil from the Western Hemisphere as we get from the entire Middle East. Whereas oil from Mexico has increased to almost 25 percent, oil from Saudi Arabia has dropped to only 2.6 percent of our imports. So our oil dependency today is not a dependency on the Middle East and the Persian Gulf.

During the 1960's and the 1970's many people testified before your subcommittee about the swing strategy. Military planning was based on the concept of the swing, which meant, that in the event of war, the Pacific fleet would be swung to support our Atlantic commitments.

Today that is inconceivable. We now have a Soviet Pacific fleet that is larger than it has ever been. That fleet alone, has more ships than the entire U.S. Navy. To swing out of the Pacific would be to abandon an area where many of our principal commercial interests and principal oil sources lie. And of course, it contains a great many of our principal alliance relationships.

So, we cannot abandon the Pacific as was proposed in the planning of the 1970's. One could perhaps understand how in a different world, with a different Soviet fleet, and with different dependencies how administrations could plan for a 470-ship fleet based on a swing strategy.

Today that is inconceivable. We must have forces available to deploy not only to the Atlantic theaters with the 6th and the 2d Fleets as I outlined, but also simultaneously to the Pacific, to the 7th and the 3d Fleets, and to the Mid-East force of the Central Command. We cannot abandon one in order to deal with the other. In the 1970's, we shrank to a fleet that could only be employed in a swing strategy.

In the Pacific, we have the 7th Fleet as our forward Western Pacific Fleet. In wartime, we notionally intend to deploy four carriers to the 7th Fleet, together with a one battleship Surface Action Group, and three underway replenishment groups. In peacetime, we maintain an annual average of about 1½ carriers in the Western Pacific. That, as in all of the fleets, allows for a peacetime operational tempo in which we strive for at least 50 percent time in homeport for the families. That, of course, could not be adhered to in wartime.

Hence the ratio of how we operate in peacetime and the size of the force that necessitates as compared to how we operate in wartime and the size of the force that it necessitates. Both require the same size force.

The 3rd Fleet has responsibility, in wartime, for the Bering Sea, the Aleutians, Alaska, the Eastern Pacific, and for the Mid-Pacific region where, in wartime, there would be considerable overlapping and trading back and forth between the 7th and the 3rd Fleets just as there was during World War II.

To cover this vast geographic area in wartime, we will have two aircraft carriers and one underway replenishment group.

Mr. BENNETT. What is this area now?

Secretary LEHMAN. Essentially, the Eastern Pacific: Alaska, the West Coast of the United States, Central and South America, and the Mid-Pacific region. We also have to consider the shifting of forces as they are employed at different times in the mid-Pacific during actual wartime.

Mr. BENNETT. What I am trying to understand is you described the Pacific Fleet as four carrier groups and one battleship.

Secretary LEHMAN. No, that was the 7th Fleet. Simplistically, the 7th Fleet is the Western Pacific Fleet.

Mr. BENNETT. Thank you.

Secretary LEHMAN. Of course, the 7th and 3d Fleets also cover the Aleutians, Hawaii, Guam, Japan, the Philippines, Australia, New Zealand and the critical strategic Southeast Asian Straits. It is an immense geographic area in which six carriers will be assigned during wartime, four in the Western Pacific and two to cover Central, North, and Eastern Pacific.

Mr. BENNETT. You are telling me that it takes six carrier groups for——

Secretary LEHMAN. For the Pacific in wartime.

In the critical area of Southwest Asia, the Indian Ocean, and the Persian Gulf, we do not have a numbered fleet, although some have proposed the recreation of the 5th Fleet for that purpose. We have the Middle East force and the Central Command and 7th Fleet Ships in the Pacific Command. In wartime, it would be similar.

Thus, in addition to those forces that must be assigned to cover the requirements in the Pacific by the 3d and 7th Fleets, we must have additional forces to meet requirements in the Indian Ocean and the Persian Gulf area. In wartime, we have for planning factors, two carriers to cover the entire Indian Ocean, Southwest Asia, East Africa, and the Persian Gulf area to meet our commitments in those areas. We also have a battleship SAG assigned and one underway replenishment group.

So, essentially, those are the wartime force structures from which we derive the size of our fleet. They also are the peacetime deployment and training structures from which the requirement to maintain a steady peacetime foeward presence, and adequate readiness an acceptable level of training are derived.

When you total the numbers that I have given you, you end up with 15 carrier battle groups, four battleship SAG's and 10 underway replenishment groups. I should go through the notional composition of each of these groups. A carrier battle group, notionally, includes one carrier, two cruisers and four DDG DD's.

A battleship surface action group contains one battleship, one cruiser, and three destroyers. Each URG, notionally, is seven underway replenishment ships, one destroyer, and three frigates.

So when you total those numbers up, you get roughly 105 surface combatants assigned to the carrier groups and the battleship surface action groups and 70 underway replenishment ships and 40 escorts assigned to the URG.

We have in addition, 7 convoy escort groups. These convoy escort groups are made up of one DDG and up to nine frigates. That gives us a notional 70 ships. In addition, we have 100 attack submarines. I would rather cover how we actually deploy them in a classified session.

We currently have a notional, 40 SSBN's in the force. We have 27 material support ships; destroyer support, and sub support, [AR's and ARS's] and roughly 33 fleet support ships, [AGOR's and FBM support ships], and so forth. We also have six small combatant PHM's and 31 mine warfare ships.

When you add all of those together with the 75 amphibious ships that are necessary for the assault elements of one independently deployable Marine Amphibious Force one independently deployable and Marine Amphibious Brigade, you come to a number somewhat over 600.

This is a force, which is set in size as I have suggested, not by any one person's strategy, but by the size of the world, the breadth of our commitments, and the size of the Soviet Fleet that threatens them.

That is a broad outline of the analysis from which the 600-ship Navy, in numbers and type, is derived.

PRINCIPAL ISSUES

Now let me turn briefly to the principal issues that have been raised. I will not spend much time on the criticism that some have raised that navies do not mean anything. That is kind of a sophomoric debate to enter into. I do not think that anyone can seriously suggest that the United States can carry out any defensive strategy without control of its vital interest sealanes. So that is sufficient unto the case for the maintenance of the 600-ship Navy.

Whatever else, we cannot seriously question the premise that the United States' Free World coalitions cannot win without naval superiority, whatever happens in the land war. I would suggest that history shows us abundant lessons that the Soviets, or any large continental land power, cannot long prevail once it has lost control of the seas.

To me, it is a purely academic debate. Because the necessity to even implement a continental defense rests on achieving maritime superiority very early in any conflict.

The second theme that has been raised is that we have no strategy. Well, Mr. Chairman, you have sat through hours of hearings these last months in which our strategy was laid out to you in abundant detail. No one who is familiar with the realities can maintain that there is no strategy.

Indeed, I think that you will agree that rarely in a military service has one been able to find such a uniform consensus. Throughout each level, both military and civilian, there is operational support for the comprehensive strategy which now forms our naval planning. So to me, the argument that we have no strategy falls of its own weight. Anyone who doubts it may simply refer to the records of your hearings.

Is it the right strategy? Well, first, let me say that the term strategy is one of the most abused and misused terms in this town. For those of us inside the Beltway, strategy is a notional concept to enable us to allocate resources which best allow the theater commanders to carry out the defense commitments set by the President.

That is not a formula for fighting each ship or deploying each tank in the battles that may take place around the world. That is not the function of anyone inside the Beltway. That is the function of the theater commander who is given the responsibility to carry out the defense objectives decided by the national command authority.

STATEGIES

We have a strategy. You have been fully briefed on it. And the purpose of that strategy is to inform and to give coherence and direction to how we allocate money among competing types of ships, the different accounts for spare parts, and weapon systems. It requires choices. It requires allocations of shortages. To do that intelligently requires a strategy for the allocation. And that is the strategy that you have been fully briefed on.

Title 10 charges the Secretary of the Navy with ensuring the highest level of training appropriate to the responsibilities placed upon the Navy. That is what strategy provides to us, a framework to train in. As I mentioned earlier, we are currently engaged in a major training exercise with our NATO allies, Ocean Safari. It started off the east coast of the United States. They fought their way across the Atlantic, and are currently north of England and east of Iceland, and will end up in the northern Norwegian Sea.

That is very effective training. It is being carried out as part of a coherent operational training plan linked to the way that the CINC's, the theater commanders, intend to fight a war. That is not to say that there is a cookbook somewhere to determine when to move an aircraft carrier, or how to move or where to move an attack submarine at any given point.

There should never be any such cookbook, and certainly it should never come from Washington.

Mr. Bennett. And it should not be publicized.

Secretary Lehman. It should not exist nor be publicized, because a wise military commander adapts his strategy to the hour and the circumstance, and does not refer to a checklist or a cookbook whether it is written in a think tank, the Pentagon, or by some joint staff somewhere. It is important to understand the notion of strategy.

The strategy that determines our force planning and our training is a very sound one. You have been thoroughly briefed on it. And while it is constantly evolving and being updated, and is a live concept for organizing our training, it is not a precise cookbook to be handed to theater commanders with a mandate to carry out.

The fourth issue is, have we procured the right Navy to carry out the requirements that the Nation lays upon us? I would submit that there is always room for looking back and saying, well, perhaps we should have put more Close-In Weapon Systems [CIWS] launchers on this type of ship, or perhaps we should have made the SSN-688 class submarine a little smaller or a little larger, but the great advantage that we have is that our ships have been derived not from some set of analytical models. They have been derived and designed from the deck plates, by the sailors who have been out there and have just come back from being confronted by Soviet *Victor* class submarines and Soviet *Kiev* class carriers, who have had to deal with Soviet Bear bombers flying over their carrier battle groups. The wisdom of common sense and the highest available technology are what have determined the design of this Navy we have today.

There are many other kinds of ships that could do very adequate jobs. For example the British *Invincible* class, V/STOL carrier, is a very capable antisubmarine warfare ship. It would be very nice to have some of them in the U.S. Navy. We could make good use of them. There are many European frigate designs that are very attractive, and we would like to have some of those and we could make good use of them too. There are diesel submarines in our European alliance navies that fulfill a very effective role, and if the taxpayers of our European allies were not buying these things, we would have to buy them. But happily, they are carrying a considerable share of the burden of naval defense, and we do not have to buy them.

So the issues of which type of ships, I think, are the perennial ones. Should carriers be bigger or smaller. There is no absolute answer to that question. All I can tell you is that if I had to decide again, right now, what kind of carrier we should have, I would recommend the *Nimitz* class carrier as the optimum size and design for putting air capability at sea.

Could we use more *Midway* class carriers? Yes, indeed. They would be very useful. I would like to have another five of them. We expect the two that we have to be in the force for a long time to come. Could we use *Invincible* class carriers? Sure, we could. They are very good ships. And if they were added to the budget, we would be happy to deploy them.

But we are not prepared to give up any of the ships that we now have in our force to get any of those nonexistent ships that could do a good job. Similarly, with our nuclear attack submarines, we could have more submarines if we built them with less capability. But our tremendous edge in technology is a permanent edge built into the nature of our culture and our economic system compared to the Soviets. It is to that advantage that we must always build; not to go to cheaper, smaller, less capable ships in larger numbers. That is an area in which a totalitarian, centralized, planned economy excels.

It would be foolish in the extreme for us to adopt a defense strategy at sea that attempts to match totalitarian regimes in sheer numbers of cheap reproducible items. Time and again, the high tech solution has proven to be the wisest investment, and it is, by far, the most advantageous one for the United States and its Western allies.

This is true for our missiles, our aircraft, and our ships. We have, I think, the finest naval ships in anyone's navy. Ship for ship, the designs are superb, and they are not arrived at lightly, as you know so well, having lived with us this last 4½ years as we designed the DDG-51 with thousands of helpful ship designers from every quarter, in and out of government.

We do have the benefit of good ideas, and we even listen to bad ideas. But these ships come through as the ideal mix in my judgment.

So we do have the right Navy. There are plenty of other kinds of ships that we do not have that, in fact, we would like to have. I am not here to tell you that we could not use a Navy larger than 600 ships. Because as you know, the Joint Chiefs believe that we need a Navy closer to 900 ships. All of the service heads, not just of the Navy and Marine Corps, have consistently and repeatedly said that the prudent risk force requires about a 50-percent increase in the number of aircraft carriers and attack submarines contained in the 600-ship Navy.

The reason that we have consistently stayed with the 600-ship fleet is that we are prepared to accept the risk that our allies will continue to maintain modern effective navies. We are prepared to accept the risk that our Nation will make the right decisions in time to prevent the loss of forces early in a conflict. We think that those are the prudent risks that give us an affordable Navy.

AFFORDABLE NAVY

And that, of course, brings me to the last issue that has been raised in the CBO study and others, can we afford the Navy that we have laid out? First of all, as you know, we now have under construction and fully funded all of the ships necessary to reach the 600-ship Navy under construction and fully funded the 15 carrier battle groups, the 4 battleships, and the 100 attack submarines.

We are now seeing in our long-term planning, and indeed in the budget that you have dealt with this year, a reduction of our shipbuilding program and our aircraft procurement program to what we call the sustaining rate for the 600-ship Navy, a notional 20 new construction ships a year, Some years, that number must be a little higher; some years, a little lower, depending on the block obsolescence of various types of ships.

We are finding that that is a good sound average. Instead of the average 26 years of life that we got out of ships in the 1960's and the 1970's we are now easily attaining a 30-year notional life. The average life increased because of better maintenance, more qualified and better trained personnel, the lack of a big backlog of overhauls, and the higher tech that we are putting into those ships.

As mentioned, we are projecting a steady state average of 20 ships a year for the future, and we believe that this is quite affordable. We agree with the Congressional Budget Office that 3 percent real growth is going to be needed but, disagree that it will necessitate higher than 3 percent; we also disagree that 3 percent is nonsupportable.

In fact, except for the period of the late 1960's and the 1970's, which was an anomaly, we maintained sufficient growth in Navy budgets, to maintain an adequate size Navy through all of the postwar years. The 1970's and the Vietnam period were an anomaly in our postwar history. Unfortunately, the Congressional Budget Office takes that as what should be the norm for the future; flat, no-growth budgets.

Mr. Chairman, I agree with the Congressional Budget Office that we cannot maintain a 600-ship Navy if we have no growth budgets indefinitely into the future. We know because we have been there. We went through it in the 1970's. We know that the damage done by such a policy is far worse than just the notional percentage loss. The loss of competition, the tremendous price increases, the loss of production rate economies and so forth greatly magnify the dollar impact.

You know all of that. You yourself have been through it. If we get no real growth, we cannot maintain a healthy, ready 600-ship Navy.

Also, even with the 3 percent growth figure, the CBO's parametric models are based on essentially, straight-lining the performance of the last 10 years. Well, that assumes that Congress will refuse to make the necessary changes in the ways we are afflicted with bureaucracy, overregulation, and statutory incumbrances in the ways that we procure.

And I have more confidence in Congress than does the CBO. I think that there are going to be substantial changes. As I mentioned the last time that I appeared, by actual measurement in the Library of Congress the statutory and regulatory law currently governing Navy procurement covers 1,152 linear feet. That is twice as high as the Washington Monument. This drives tremendous inefficiencies. That a hammer can be procured for only $400 given all of the OSHA, clean air, and the myriad other forms that must be filled out by the hammer seller is a marvel of human ingenuity.

The CBO assumes that because this inefficient congressional/executive system has been in place that it will remain in place. I do not accept that. I think that we in the Navy have shown an historic reversal of the trend of inevitable rises in cost.

COST SAVINGS

Today, Mr. Chairman, the last contract that we signed for a follow-up Aegis cruiser was only $900 million. Four years ago, they were well over $1.0 billion, and many projected them to be up to $1.6 billion by this year. That did not happen, because we brought competition into the program and both producing yards have brought new efficiencies and new cost discipline.

You are very familiar with the tremendous cost savings that we have returned, on shipbuilding every year now, with little notice in the press. You well know that this is an historic change and a very firm break with decades of past history.

Similarly, the costs of Navy aircraft have been going down, not up. That is a break with 30 years of unbroken cost rises in naval aircraft procurement.

So there is nothing inevitable about growing costs in defense. We have proven with consistent results over the last 4 years that cost underruns can occur just as consistently. If we just make prudent assumptions, not even optimistic assumptions, there is no question that we cannot only maintain the current size but also the proper mix of our force through the rest of this century with the 3-percent growth budget. Also, we can maintain the fantastic turnaround in readiness that we have achieved with the 7-percent growth budgets of President Reagan.

As you know, we have increased the readiness of our ships and aircraft under the UNITREP reporting system nearly 40 percent. And more importantly, all of you have been out to the ships, and have felt that palpable difference. You have seen the difference in readiness, the tremendous safety record reflected in uncrashed airplanes and unbroken equipment. We know that we can maintain that success with the size budgets that are currently envisioned by the President. So my final assessment is: we have the right size fleet now under construction; we can maintain it; it is built to the right requirements; and we can afford it, Mr. Chairman.

Mr. Bennett. Well, I hope that all of the American people heard what you said. It is fantastic that you could draw on such intimate and well-founded information in your own mind and not refer very much to notes to do this as well as you have done it. I think that it is the best presentation that we have had in many, many years, probably all of the time that I have been in Congress, in evaluating our needs in the Navy, and I congratulate you upon it.

I do not have many questions to ask you. I think that inherent in what you have just said, although you did not say it in words, is that it is the duty of the Navy leadership both in uniform and out to produce a Navy, if it can, that can do the jobs that are put upon it by the national government.

And if they want to reduce the Navy from what you have projected, the only real way to do that is to reduce the obligations, like under treaties or whatever it is that we have. You have laid out a program that is a good program. It is a modest program to accomplish the tremendous responsibilities that are on the Navy, but there is not really any way to save in numbers of ships or the qualities of ships unless you reduce the responsibility.

So that really is something that is given to you by the administration and by the total Government, and you are doing the job as you see it to the best of your abilities and as economically as possible.

But is that not about it? Isn't it a question of whether you can do the things that are laid upon your shoulder?

Secretary Lehman. That is very well put, Mr. Chairman, and I agree with it completely.

Mr. Bennett. There are a couple of little questions that I would like to ask you that are tangential. And I am not locked in cement on it at all, and I may well be wrong. There may be reasons that would indicate that I am wrong about them.

In view of the question of sustainability and the financial aspects of the Navy, I have at least some question about the method of homeporting, the deployability of these ships, the new ones coming on in areas where there currently are no really good naval facilities.

I immediately think about tangential type things like a big swimming pool, bowling alleys, three kinds of chapels, Jewish, and

Catholic, and Protestant, golf links. A lot of this is taken care of by the commissaries and PX's. But of course, there is a lot of Federal money in commissaries and PX's.

I am just worried about the military construction and that aspect of some of these locations. And it seems to me that it would be a lot cheaper if we tried to have that kind of facility either in the Navy or in some other branch of the service. I have not myself looked through the various places. I have not been a part of choosing where the places were to be. But I have some concern about that.

And in view of the question of the financial aspects of it, I wish that you would address a bit the cost of the change in homeporting, and is it really worth it in view of the constrictions that are put on us financially?

Secretary **Lehman**. Yes, Mr. Chairman. First of all, I think that there was an unfortunate report issued by the GAO some weeks ago about homeporting that I think was based on faulty data. They put a dollar figure of a billion dollars on projected homeporting costs. That is what it would cost if we did it the way that you fear it might be done; that is if we simply went into each of these selected new homeports and built a whole new base with bowling alleys, and theaters, and chapels. But, that is not the way that we have approached it. First of all, let us look at the requirements. Today, we have cruise missile-equipped Soviet submarines right off our coast and our principal naval ports virtually throughout the year.

We know that as early as 25 years ago, they tested seaborne submarine-launched cruise missiles with some 300 mile range in both conventional and nuclear capable modes against land targets. They are now deploying their "Tomahawkski," which is even more capable and with much greater range. But for 20 years at least, they have had 300 mile missiles deployed on their submarines.

HOMEPORTING

Today, in Norfolk, we have 122 ships homeported in one place. And that is a vulnerability that we are not comfortable with. We know that the Soviets exercise mine laying with their nuclear subs. As we have seen, they have also exercised their mining techniques by the mining of the Red Sea from a merchant ship using Libyan surrogates. We must assume that in wartime, strange flag vessels could very easily do just what the Libyans did in the Red Sea with Soviet mines.

So the concentration of our fleet is a disturbing aspect of our current deployments. However, we have decided that the advantages and the cost effectiveness of our current major homeports warrants the maintenance of the present levels. We have no intentions of reducing, over the long term, the size of those concentrations in San Diego, Long Beach, Norfolk, and Charleston.

But, we certainly are not going to exacerbate the problem by loading the 130 additional ships into those same homeports that are already saturated from a military point of view. Would it be cheaper to do that, to go from 122 ships in Norfolk to 150, to add another 30 ships to Mayport, or to add another 20 to Charleston? In some cases, yes; and in some cases, no. We are so saturated at some of those ports that entire new facilities would have to be built.

As it is, very often we have to anchor out in some of those homeports for lack of pier space. So there would be a cost to simply move into existing homeports as is suggested.

But the plan that we have now adopted and are implementing does exactly what you suggest. We requested and received proposals from interested port cities. Recognizing the significant economic benefits from Navy ship homeporting, these State and local governments have offered substantial fiscal commitments that offset our initial capital investment requirements. Analysis of these costing alternatives was one factor in my decision on homeporting sites.

In most areas, land was made available at no cost. In New York, for instance, we intended to utilize the existing Fort Wadsworth complex. It has bowling alleys, chapels, and infrastructure already in place. We are taking advantage of that.

Mr. BENNETT. Well, down in our part of the geography, most of the controversy is about Corpus Christi. They say that it is too far up the stream for a battleship. And I do not know what the merits or demerits of that are, but it is pretty prevalent in the press.

Secretary LEHMAN. Congressman Ortiz will assure you that that is not the case.

Mr. ORTIZ. That is not the case.

Mr. BENNETT. Well, I would like to know how they avoided all of that cost in Corpus Christi. How did they do it?

Secretary LEHMAN. The largest new infrastructure that we have to build is in Everett, WA. There, the total cost over the 5-year period will be $272 million. That is more expensive than if we had put that ship in San Francisco or in San Diego. But in either of those places, we would have had to build new piers and new infrastructure.

Mr. BENNETT. Well, it is not our purpose to second-guess you. And I have been out to Everett, WA, and I think that it has a very good location, and I am not faulting any particular spot. But I did ask you a question, how did they avoid all of that cost in Corpus Christi?

Secretary LEHMAN. The current total cost to the Navy—in fiscal year 1985 dollars—for the entire gulf coast, all six homeports that were chosen combined is only $171 million. Part of what happened in Corpus Christi, and Congressman Ortiz I am sure could elaborate in great detail, is that the State and local communities have offered $50 million in offsets plus substantial infrastructure to allow us to have such a low cost.

I believe that the cost to go to one of the existing homeports, would be greater than the $171 million in the Gulf.

Mr. BENNETT. Did they do that by a bond issue, or how did they commit themselves?

Secretary LEHMAN. Half of it was a State contribution of $25 million, and half was a bond issue passed by the city of Corpus Christi. Perhaps Congressman Ortiz would like to comment.

Mr. ORTIZ. Yes, this was something that has not been done anywhere else, Mr. Chairman. The citizens of Corpus Christi passed a bond issue in the amount of $25 million, and then the State added another $25 million. But when we look at the quality of life, and when we look at parks, and roads, and highways leading to the installation here, we are talking about $325 million that the State and the local community would put in. This is why it is a lot cheaper to go with Corpus Christi.

Mr. **Bennett**. Well, it is a legitimate action on the part of Corpus Christi, but it is not unique. Because I led the bond issue fight in 1939 or 1940, I guess it was, to create the naval air station at Jacksonville, for which the people of Jacksonville put up all of the money. I think that probably was unique at the time. But it is certainly well done what you are doing if you did that. I am trying to bring these facts out, whatever the facts may be. I do not have a prejudgment on it.

I know that the Governor of Florida was concerned about Corpus Christi, and he raised the question of whether or not it was too far up the channel for battleships, and that he thought that it was not the wise thing to do. And he thought that it would be very expensive to do that. He has raised these things in our local press, so I am asking you tell us. And you are telling him, well, the local people of Corpus Christi did precisely what the people of Jacksonville did, they bonded themselves to help the Navy come there.

And I must say that if you have the same relationships at Corpus Christi that you have in Jacksonville with the Navy, it is wonderful for both sides, because it is really a family sort of a thing, and it lays a good morale basis for the Navy in the future when a community actually says to the Navy, we want you to come, and we are going to be part of the team. The result sometimes can be much greater than the mere dollar impact.

So I am glad that Corpus Christi has done that. I think that you will probably reflect the same thing that we have had in Jacksonville, which will be very good.

Mr. **Ortiz**. If you remember in the beginning when we were talking homeporting, one of the first questions that I asked the Secretary of the Navy was what it amounts to is that the community that is able to present the best proposal and saves the Navy money, that is where you are going. And this is exactly what has happened. Corpus Christi was able to submit a good proposal.

We do have an existing naval base, a naval air station. We have the Kingsville Naval Air Station, and the Beeville Naval Air Station, and then of course Corpus Christi. So in my opinion, there is going to be a tremendous savings to the Navy, and I am glad.

Mr. **Bennett**. I am just trying to find the facts.

Secretary **Lehman**. But, I might also say that the Florida offer was very attractive. That is why we accepted it, and why we are putting an operational aircraft carrier, the *Kitty Hawk*, in Pensacola. Had we put more than that in Pensacola, a major new base addition would have had to have been built. That, as you know, was part of the proposal from Pensacola, and that cost would have been very close to the Corpus Christi cost.

As it is, we are bringing a substantial increase in presence to Pensacola for very minimal cost, because of the existing carrier pier there, and the infrastructure that already exists.

Mr. **Bennett**. I am in no way being parochial about this. I just feel that it is my responsibility, in view of the media coverage of this matter, that all of the facts be brought out. And I think that it is great that you brought them out. I did not know until you just testified that they had that bond issue approach, that they were making that effort to bring the Navy there.

Some people might feel that that is not a good thing. Our experience in Jacksonville has been that it has been a wonderful thing. The fact that you have given something to the Navy is a thing that Jacksonville is proud of, and it lasts forever, it never leaves. In other words, there is a feeling that we have asked you to come. We are glad that you are here, we want you to stay, we want the Navy to be strong. There is no negative thing about it at all.

And so I feel like it is a healthy thing for a community to come in like that, and Corpus Christi has apparently done it, so I congratulate them on it.

Mr. SISISKY. Mr. Chairman, I would just like to caution, if you will, the Secretary. We are not only talking about capital costs, Mr. Secretary. I serve on the Military Construction subcommittee, and I know how all of these things drive other ends of the budget. But it is an overhead cost, too. And I would hope that as we go into our budgets on military construction you talk about overhead costs and the addition of what that would cost by not going to an organized base. So it is not just capital costs that we are talking about, it is overhead.

Secretary LEHMAN. That is right.

Mr. SISISKY. And I think that for the next year or two this will be an issue. Again we look at the budgets for Kings Bay. Every time I turn around, there is something else coming into Kings Bay. It is a necessary facility. I am not arguing against that. But we sit on other committees, and we have to look at these things. So I would hope that when you present this, that you talk about overhead costs, too, and any increase.

Secretary LEHMAN. Right.

Mr. SISISKY. And basically, it is done, and the questions that are asked are about the sustainability. It is not the direction. We understand that they could mine our harbors. But if they could mine six harbors, they could mine nine harbors. And you know, we see that you can buy a lot of minesweepers for that amount of money, too. So we understand all of that. But I would just hope that you would include all parts of that.

Secretary LEHMAN. That is right. But, I think that you will see that there are considerable savings to be gained by dispersing to a wider industrial base rather than being stuck in the limited competitive environments that we now find ourselves. Part of the advantage is that we are now going to be able to sustain a much larger service repair industry and industrial base than if we simply kept the existing homeports.

Mr. BENNETT. I do not want to usurp all of the time here, not having our little machine at work here today to tell us when to quit. So I will try to get on to just one other little question that I want to ask you about, and you can guess what that is. That I am just hoping real strongly that you will bring this Merchant Marine and Defense Commission to fulfillment.

The President has not yet appointed the other people besides you to the Commission, and I would urge that he do so. But I really do believe that the time is almost running out on us from the standpoint of the merchant marine. We have got to do something to strengthen our ability to get things overseas.

It was testified earlier in these hearings that the NATO commitment is ten divisions in 10 days, and that we cannot get more than four or five divisions to Europe in 10 days. And if we are relying on ten being there, we are not going to do it. And somehow or another, we have got to answer that. It will probably cost money, but it may not cost as much money as it looks. Because if we have a strong merchant marine, maybe our whole trade situation would turn a little bit better for us. And whatever it takes, we just have got to do it. I mean assuming that you want to be a viable nation and stand up and carry on for the future, we have got to do something about it.

I really feel badly in a way that I specifically wrote into this language that you would be the man who would head it, because I realize that you are so overworked. But you do everything that you do so wonderfully, and I guess that that is one of the penalties of being a competent person. And I am looking forward to you doing a good job there. You are going to do a good job there, are you not?

Secretary LEHMAN. Well, thank you, Mr. Chairman. I am really looking forward to this opportunity. I think that there is a drift in the maritime industry, and that there is a real opportunity to try to establish a consensus for action that might finally lead to some progress in dealing with the root causes and getting a recovery underway. So I am very anxious to get to work on the Commission. I do not think that there is anything more important in the maritime area.

Mr. BENNETT. Mr. Sisisky, would you inquire?

Mr. SISISKY. Thank you, Mr. Chairman. The Secretary has answered most of the questions that I was going to ask from the previous hearings. I want to commend you, Mr. Secretary. I do not always agree with you, but you are the best damn thing that has happened to the Navy in a long time, I can tell you that. But I do worry about sustainability, and I do worry about the 3- to 5-percent real growth.

If someone would have told me or you 8 months ago that we would be in a position where we are right now with not being able to get a conference report on the House floor, because we are arguing whether we get $292 billion or $302 billion, and we forgot that we came down from $324 billion. I do worry about that.

And the thing that comes to me when we talk about building these ships is if are we going to have full crews? I worry about it for another reason. I think that I told you a little while ago that I had the occasion a few weeks ago to go under the sea on a nuclear attack submarine, a SSN-688 class, which I wanted to do.

But to see the morale of this crew of people that stay under the water for 6 months out of every year. It is an unbelievable experience to see the morale of these people. And I commend you and your officers just for that. But I worry how long can we keep that up with the capital and personnel that we have.

You know, are we going to get more people, are they going to be on these ships? So I worry about that. What is going to happen in the future? Right now, you have absolutely done a superb job. I know that they were not putting on a show for me, but these people are under the sea for so much of their time and away from their families, and I think that that is one thing that the American public forgets.

But I worry about it in the future. Can we sustain those people far away from home, and can we even do it with the 3-percent real growth? I worry about that.

Secretary **Lehman**. Mr. Chairman, I think that one of the worst developments that we have had in the public dialogue has been this emergence of the 3-percent debate over the last 10 years. That has done nothing but obfuscate clear thinking in defense. We will retain adequate personnel if we pay them properly. But, if the Congress continues to take whacks out of retirement and put caps on pay increases, our people will not be able to keep up with inflation, just as happened in the 1970's. And, you will get just what you got in the 1970's, which was 91 percent manning with a very low quality relative to what we need in the Navy.

RETENTION OF PERSONNEL

So, when your full committee whacked $4 billion and said those guys out on deployment on those submarines are living on a gravy train and should not be allowed to retire at 50 percent of their base pay after 20 years, 14 of which is at sea, that hurts. And guys get out of the Navy, because they feel that they are being kicked in the teeth by Congress to make political hay, while posturing for their constituencies at home, and for some hocus-pocus economic theory about the effects of deficits, a theory which has been proven wrong, every year for the last 4 years. Every economist in the country has paraded before this Congress, and said how inflation was going to explode again, and how the deficits were ruining the economy. Everyone has been proven wrong, year after year.

Yet for the last 4 years, we have had $70 billion whacked out of the Navy budget in pursuit of that discredited chimera that people actually can predict what the economy is going to do and what the effects of the deficit are.

Defense does not cause the deficit. We are only 17 percent of outlays. And yet those kids on the submarines are taking the brunt of these theories of how to correct the deficit. If we pay them adequately, we will continue the successes that we have had for the last 4 years in keeping the high quality and numbers of personnel that we need.

Mr. **Sisisky**. I did not want to get into a debate with you over the deficits. I disagree with you. That $70 billion that you referred to over the past 5 years has been an increase in the interest, just the increase in the interest on the deficit that we could have had. And I could argue over the retirement, too. That is another story. I did not mean to get into that. But let me get back to questions before my time runs out.

You made a very valid case for the 15 battle groups and the 600-ship Navy. You absolutely convinced me, but you left something out, I think. When we talk about deployment in war and peacetime, how many of these ships are being repaired? You know, we can theoretically say that we can put 15 battle groups out there.

But you know that I see two carriers in my shipyard at any given time, and four submarines or six submarines, and other ships.

So you know, we have to consider that. This is the optimum perhaps. But when ships deploy to sea in salt water, they are going to need repairing. And I think that that is something that we have lost sight of.

Secretary **Lehman**. That is a very good point. And it is, of course, the reason why we maintain naval shipyards. Historians say that the turning point of World War II was the Battle of Midway. Well, the turning point of the Battle of Midway was brought about in no small part by the carrier *Yorktown*. And the carrier *Yorktown* was in the battle only because the naval shipyard at Pearl Harbor was able to turn her around in only 4 days, after she had been clobbered in the Battle of the Coral Sea.

Without that kind of immediate battle damage maintenance, you cannot fight a war at sea. So you are absolutely right. The naval shipyard network and the industrial base of private shipyard repairers is as essential a part of military readiness as the beans and the bullets that get so much attention.

Mr. **Sisisky**. That is all of the questions that I have now. Except that I would be glad to meet with the Secretary to give him time on the other things that he raised.

Secretary **Lehman**. I would be happy to.

Mr. **Bennett**. I think at this point Congressman Stark asked that somewhere in the hearing some questions that he had be answered. So without objection, the questions will be given to the Secretary for his response directly to Congressman Stark.

The next to inquire is Mr. Bateman.

Mr. **Bateman**. Mr. Secretary, thank you also for your very cogent statement today. It has been beautifully organized and laid out for us, and all of us commend you for it, and thank you for the service that you have been performing for the Navy and for the country.

You have addressed most of the questions that I had in mind asking you that were raised during the earlier hearings. Perhaps it might be useful for you to focus a little bit more on the suggestion from some that we ought to build a larger number of submarines, some of them or many of them diesels, and some significant questioning of whether or not the SSN-21 is the way to go as opposed to a larger number of smaller SSN-688's.

Would you like to amplify on your earlier remarks on that?

Secretary **Lehman**. Yes, I would, Congressman. It is an argument that is a perennial one, but it is a useful argument, because it helps to illuminate what antisubmarine warfare is all about. Diesel submarines and nuclear submarines do very different tasks. A diesel submarine has to snorkel 1 out of every 4 hours during moderate speed transit. It can rarely go more than 24 hours except at minimum speed without snorkeling.

When it snorkels, it has to run its diesels to charge its batteries. The noise generated by that snorkeling alerts every nuclear attack submarine for miles as to where it is. Under some conditions, that detection can occur at hundreds of miles. It is a very effective vehicle against merchant ships, amphibious ships, and ships which have to stay in one place. But it is a nonsurvivable asset when compared to a nuclear submarine in the antisubmarine world.

As the British found in the Falklands, once you move a naval task force and have to stay in one spot, you can be stalked by quiet diesel electric submarines, and they are very difficult to deal with in those circumstances. But they cannot do the fleet defense and the antisubmarine work that the nuclear submarine does.

We have in our alliances more than 140 very good modern diesel-electrics that adequately cover the choke points, the barriers, and the coastal defense roles that diesel-electrics are good at. If they were to disappear, we could not carry out our naval strategy as it is now configured. We would be coming to you recommending the building of diesel subs.

But I would much rather that the Europeans and our other allies continue to have their taxpayers, rather than our taxpayers, pay for those subs. Numbers do count. The Soviets have some 120 nuclear attack subs. They have designed 12 new classes of submarines just in the last 10 years. They have been producing an average of 10 subs a year, whereas we have been averaging just a little over 2 a year. That we have had even as many as two a year is thanks only to the last 2 years of being supported at the four-a-year level.

That is why I get a little testy when people tell me that we have to take cuts for the deficit which will force me to cut from four attack subs to two attack subs without any reference to what the Soviets are doing.

The 688-class is a very capable submarine. It costs perhaps three times what a new modern diesel-electric will cost. But it has probably a hundred times the capability in antisubmarine warfare. With the Soviets at the level that they are antisubmarine warfare is a high tech game.

Essentially, it is based on quieting technologies and on signal processing, which is a state of the art in computers that is very different than data processing. We are essentially the only buyers of signal processors. You cannot go to your computer store and buy a personal signal processor. So we carry the burden of R&D for state-of-the art signal processing, and it is expensive. But there is no alternative to that expenditure.

The SSN-21 is, I believe, an optimum ship. It is not as big as some would like but bigger than many would like to see, especially those who would prefer to see larger numbers. We are confident that we can buy them in sufficient numbers, along with 688's during an overlap period, to maintain a force of 100 attack subs. But the SSN-21 will be much quieter than the 688. More importantly, its operational quietness will be much better. It will be able to operate at higher speeds and still be quiet enough to hear, and that is a very important factor.

What is important in the design of attack submarines are the arcane things that are not the subject of sexy debate between reform studies and so forth. Size and shape are not as important as quietness and the ability to hear and process what you hear at high speeds.

We are confident that after years of looking at every alternative we are close to the final design. We are not there yet, because we are going to keep competition in design alternatives right up to the end. For example, we have not finalized the final configuration of the forward section of the sub yet. We have finalized the aft and propulsion sections. Overall, the SSN-21 is an optimized approach to our submarine force.

Mr. **Bateman**. Mr. Secretary, I hope that some of those who have recently entered or renewed the debate about diesels versus nuclear subs and 668's versus SSN-21's will read your comments, because I think that it was a very exceptionally clear and to me convincing exposition on the subject.

One of the other things commented about at our hearing on Friday that has not been touched upon, and I want to give you the opportunity to do it because you do it so well, are the intimations that our maritime strategy for the United States was developed in some sort of a Navy vacuum without consultation with other branches of the service, and how it would fit into a total global American strategy, and suggestions that it was done with the exclusion of our theater commanders.

Would you comment on that?

Secretary **Lehman**. Well, both intimations are wrong. First, it has been the product of the theater commander, the CINC's, formula inputs and regular reports to the Secretary of Defense which deal with what General Rogers likes to call the war stoppers. Those reports provide an analysis of where they stand and what concerns them the most, given their military task.

We depend very heavily on those CINC reports, and particularly the war stoppers. They tell us what it is that the people who are on the line in the Fulda Gap or out in the Norwegian Sea, seeing the opponent, who know the geography, and the other constraints—what it is that they need more than anything else. We use those imputs to help prioritize things.

So the strategy has been derived from the theater CINC's, and not from top down. They are the authors of the strategy. We also have a system, as I testified before, with the strategic studies group at the Naval War College where we bring our theater commanders and our CINC's back to the War College after nearly every one of their operational tours. They spend time infusing their own wisdom and lessons learned into the doctrine of strategy and allocation of resources with the very bright people we have up there full time, who have come from and in turn will go back to the fleet. Those people in turn interface continually with the strategists in Washington who also come from and return to the fleet.

So there is a constant cycling of the people thinking about and writing the strategy. They know that they are going to have to go back and implement it as destroyer commanders, and sub commanders, and squadron commanders. This is one of the healthier cycles that I think we have. It is what makes us so short tempered with the sophomoric critiques we get about naval strategy by people who write "learned" books and treatises that have no more relevance to what the real strategy is than so much hot air.

What was the first part of your question?

Mr. **Bateman**. The first part of it, as I recall, related to the matter of whether or not your theater commanders were involved in the implementation.

Secretary **Lehman**. They are the authors of our strategy.

Mr. BATEMAN. And whether or not it was a strategy that was worked out in concert with the Army, the Air Force, and our entire global strategy.

Secretary LEHMAN. It certainly is. I do not think that there has ever been a period when we have had such close cooperation between the services. And I think that again I would only point to the results, the results of the memorandum of understanding that the Secretary of the Air Force and I, along with the Chief of Naval Operations, and the Chief of Staff of the Air Force signed in 1981, setting up 10 working groups to make a reality of the integration of our air and naval forces. It has really borne tremendous fruit.

Today, there is hardly an exercise where the Air Force AWACS airplanes are not involved in controlling the outer air battle for the naval battle group commander. We just reached an agreement where the Air Force is going to now permanently assign two reserve tanker squadrons to support AIRLANT and AIRPAC. They will train full time with us, and be assigned to us in wartime.

Admiral Lyons, when he was 2d Fleet Commander, wrote an entirely new set of doctrine on the use of F-15's integrated into the air battle over the Norwegian Sea. We could not operate with the forward strategy that we have now proved is effective in the Norwegian Sea without Air Force assets, without AWACS and F-15's in Iceland, without F-15's in Norway, or F-16's, KC-10 tankers, and so forth.

Similarly with the Army, we have been working very hard in the interoperability area. For example, there were a few areas that were underlined in Grenada where we had difficulty with communications. That is understandable. You can only fit so many radios into a given airplane. The Army, which has to operate in Central Europe with NATO armies, has to concentrate on interoperability there. The Navy has to operate under naval circumstances that often require different kinds of frequencies. It interoperates with Marines more than the Army. It is understandable that everything is not going to be perfect in all circumstances.

But we have very good working groups that are working these interfaces. I think that there has never been more harmony between the services. You will find that there has been almost no back-dooring here in Congress of one service undercutting the other.

As you well know, we in the Navy gladly contributed $640 million of our shipbuilding savings to fund the MX last year. We are only too happy to cooperate in funding our sister services.

Mr. BENNETT. Do you have any further questions?

Mr. BATEMAN. Mr. Chairman, if I could be indulged, two other areas if the Secretary would care to comment. There was something of a frontal assault on what is described by the witnesses as the forward strategy taking the war to the Soviets in the Norwegian Sea. That this strategy is one that we cannot win, because of so much of their resources being concentrated there. And that if we did win it, it would invite the virtual inevitability of a nuclear response, and is therefore a very poor strategy. It had some connotations quite frankly, to my mind, that it was a bad strategy, because it might be too damaging to the enemy.

Would you like to comment on that? And then last, in light of comments already made, would you like to comment on suggestions that there is a need for structure change in the operations of the Joint Chiefs of Staff?

Secretary **Lehman**. Well, first, I think you are right. A lot of the opposition to defending Norway and to meeting our other commitments is, in some quarters, part of what Ambassador Kirkpatrick called the Blame America First movement, that somehow we must not be in a position to provoke the Soviets.

The fact is, that all of us, every serving Admiral and I, raised our right hand and swore to uphold the law of the land when we came into these jobs. That law includes article V of the NATO Treaty which says that an attack on Norway will be treated as an attack on Long Island. That Norway, Denmark, Iceland, and the United Kingdom are just as much a part of NATO as we are, and that we have a common defense.

We have a sworn obligation to carry that out, and that includes defending Norway. And Norway is in an exposed position on the Northern Flank. We know that Soviet war plans include the invasion of Norway. Now we could, as some have suggested before this subcommittee say, "no, that is too hard, the Soviets will shoot at us if we try to defend Norway." But we think that only people comforted inside the Beltway could seriously espouse a doctrine that provides a sanctuary and safe haven to the Soviets, and writes off an entire geographic area such as Dean Acheson inadvertently did prior to the Korean war by drawing a line with Korea outside of it.

There are those seriously proposing to do the same with the Norwegian Sea, Norway, and the entire Northern Flank. That is very foolish military thinking, and we certainly are not going to have any part of it. We intend to help defend Norway and we are confident that it can be defended. But, we know of no way to defend it without air and sea superiority in the Norwegian Sea.

That superiority will not be achieved easily. The submarine threat has got to be dealt with before any aircraft carriers go there, and land-based air cannot provide 24-hour-a-day air superiority over that theater. Sea-based air must play a part. We are pledged to provide reinforcement and marine amphibious capability. We are not going to leave those forces to the prey of Soviet Backfire bombers and submarines.

So the idea that the northern flank or the eastern Mediterranean, the southern flank, cannot be defended is silly. I mean it is sophomoric. It does not really involve an awareness of the reality of the military threat everywhere.

The argument goes that we should build a low threat Navy. That that area is too high threat. Well, if the Falkland Islands were in a low threat area and Exocet missiles and supersonic aircraft were part of the threat, there would appear to be little difference among areas of the world as to the nature of the threat.

The fact is that the northern flank is one of the more ill-defended areas of the Soviet Union. As a point in fact, there are weakness and vulnerabilities there. There are many areas that are more threatening to operate in than the northern flank area. Indeed, the naval forces are certain to be the least vulnerable military capability that NATO has.

We have numerous NATO bases in northern Norway, and they do not move at 31 knots. They do not have seven layers of air defense protecting them as all of the naval forces that go up there will have. If there is an issue of vulnerability that needs looking to, it is the vulnerability of our land-based forces, the thinness of the air defense of our Air Force, and POMCUS, and Army deployed units in NATO.

The Navy is in far better shape, and will sustain far better the attacks of the same cruise missiles and bombers that will be attacking the land bases. We are far better able to cope. Other than that, I agree with everything that Admiral Turner said.

Mr. **Bennett**. Are there any other questions?

Mr. **Bateman**. Thank you, Mr. Chairman, I think I will abstain. Thank you.

Mr. **Bennett**. Mr. Ortiz.

Mr. **Ortiz**. Thank you, Mr. Secretary. We certainly appreciate your excellent testimony before this committee. And there is no question that because of your leadership that we have been able to save money, and at the same time because of that we have a better Navy today.

I understand that a directive has been issued to Navy recruiters to increase by approximately three times the number of pilot officer candidates for fiscal year 1986 than were signed up in 1984. In this regard, it is my understanding that the Navy is currently short approximately 1,000 pilots in the critical rank levels.

Does your recruiting effort have to do with these losses or is this projected on the number of pilots we are going to lose, or how did this come about, these recruiting efforts?

Secretary **Lehman**. Well, Congressman, one has to be very careful with the statistics in our specialty requirements. Overall there is very good news in aviator retention thanks to the AOCP [Aviation Officer Continuation Pay] bonus, which, in effect, brought about an almost immediate doubling of retention figures.

We are now running at about 53 percent retention for pilots, and well over 70 percent for NFO's. We are overmanned in some types and in certain grades. However, we are very short of the seagoing aviators, both pilots and NFO's. We do not have adequate manning in the middle, the second tour grades.

The reason is that we have seen a substantial rise in resignations among both pilots and NFO's over the last year. One of the reasons is the peacetime deployment schedules of the carriers, which have been at a higher tempo than even during the Vietnam war.

We have been telling them for 4 years that we are going to get a bigger Navy and back off on the time away from home, and they have not seen it happening. There is a certain disillusionment that is beginning to set in, because they are spending more than half of every year away from their wives and families. And they are seeing the difficulties that we have holding on to that bonus.

I have had to do more lobbying and fight harder to hold on to that bonus in Appropriations than any other Navy program for each of the last 4 years. Yet, it has been the most productive and cost effective of any Navy program that I could think of.

And we have seen inflation whittle away the benefits. Each year, we have seen the committees carve off another piece cutting it back in size, limiting the years that it is available. So it is smaller now than it was 4 years ago, and it has less drawing power. After taxes and congressionally mandated decrees it is only an extra $2,400 a year for some of our most capable people.

And while it certainly has helped retention, it should be higher. We need more. I asked for a 40-percent increase and got nowhere with the Personnel Subcommittee this year. I am going to ask again next year, because we need more of that pull.

There is no corollary to the sacrifice of family separation that these aviators have to go through, and we need to recognize that. But having said that, we should not overreact to the surge in resignations, because it is not by any means a crisis situation. I think that part of it was brought about by a surge in airline hiring, although less than a third of the people who leave actually go to work for the airlines. Compensation in the airlines is becoming less attractive compared to military flying.

So, while I am optimistic for the long term, we are always having to tinker with the pilot training rate to deal with year group shortages as they occur.

Mr. ORTIZ. There is something else that I would like to ask, and this is going back home, you know. Talking about the Navy training its pilots, I understand that there is going to be increased nighttime flying, and also instrument training. And since in my district, we have the Corpus Christi Naval Air Station and Kingsville, and of course right adjacent to it Beeville, how do you see these naval bases as far as the future training of pilots in that area?

Secretary LEHMAN. Well, I would love to be able to hold out to you the prospect of vast increases in activity and personnel, but I think that they are going to stay stable. Kingsville, where I went through pilot training, Beeville, and Corpus are about at the levels that we want to keep them.

There will be the infusion of the new T-45 trainer at both Kingsville and Beeville, and we are increasing the number of T-44's at Corpus, so there will be some expansion. But I would not foresee any order-of-magnitude change in the level of activity at any of those three bases.

Mr. ORTIZ. And again, my question goes back because of the assignment of the U.S.S. *Lexington* into the Corpus Christi area. But again, thank you for your answers and your leadership, Mr. Secretary. Thank you.

Secretary LEHMAN. Thank you, Congressman.

Mr. ORTIZ. Thank you, Mr. Chairman.

Mr. BENNETT. Mr. Bustamante.

Mr. BUSTAMANTE. I have no questions.

Mr. BENNETT. Then this will conclude our series of hearings. I must say that the excellence of your participation today is very much appreciated by the committee, and we will get a report out on this. And we will not be holding another meeting until October 1, at which time we will deal with the Navy problems of procurement, particularly those that surfaced in the San Diego area.

There may be another meeting of the committee in the interim on another subject, on the question of the stockpiling, because there are stockpiling problems that have come up.

Thank you very much, Mr. Secretary, for a very excellent presentation.

[Whereupon, at 11:52 a.m., the subcommittee was adjourned, subject to the call of the Chair.]